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INSIDE DOPE

by GEORGE F. TAUBENECK

Stories of the Week

Time to Laugh?
Slight Difference
Is He Human?
People Don't Listen
No Comment Necessary
Only a Little Bit Pregnant
The More the Merrier—and the
Stingier
Suffer the Little Children
For the Record
Poor Pickings for Scavengers
She Knew Her Rights
America's Seasons
This Kills Us
Inflation

Stories of the Week

Some of our best friends enjoy fishing so much that they are sure everyone else ought to love the pastime. One of these characters took a novice with him on a trip into the Northern wilds—furnishing all the gear and tackle. After they got there, the fisherman and the novice were dropped in a likely spot by the guide. Soon the innocent guest queried:

"How much do those colored thingumbobs you gave me cost?"

"You mean the floats?" the host answered. "Oh, about a quarter apiece."

"Um-m-m. Guess I owe you two bits—mine just sank."

Time to Laugh?

"Inside Dope" has been so serious of late that probably it's time to relieve the tension by telling a few of the good stories we've heard lately. So here goes:

Citizens of Texas are undoubtedly the proudest people on earth, and possibly with reason. How they feel about living in the mighty Lone Star State is typified by the Dallas father who introduced his son to a visitor from the East.

"Pleased to meet you, suh," beamed the boy, extending the right hand of fellowship, "and what state mought you be from?"

A few moments later the father drew his boy aside and advised:

"Look, Samhouston, you gotta learn to be polite to people. Never ask anyone what state he hails from. If he's a Texan, he'll announce that fact quickly. But if he isn't, you shouldn't embarrass the poor fellow."

Sam had been in Florida for a month's vacation. Upon his return, his partner looked him over appreciatively and appraisingly.

"Got a good tan there, Sam," he opined. "Look fit, too. But why are your eyes so red?"

"That's a long story," was the reply.

"Let's hear it."

"Well, my first few days down there I was lonely. But one night I was sitting at a bar, feeling sorry for myself, when I spied a lovely woman sitting alone at a table.

"Well, you know how those things go. I smiled, and she smiled, and first thing you know, we were together. One thing led to another. You know how those things go. We had a few cocktails; then we had dinner.

"After that we went to a night club, where we had a lotta drinks. You know how those things go. When the waiters started stacking the chairs on top of the tables, we weren't ready to call it quits. So we went up to my room and put away a couple of magnums of champagne. You know how those things go. One thing led to another. . . . Well sir, she burst out crying. I asked her why. She boo-hoed:

"Really, I'm a nice lady. And
(Concluded on Page 14, Column 1)

'Sales Can Be Great In '48 . . . Sell!'

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DETROIT

Wholesalers Help
Customers with
'Build-an-Ad' Plan

MINNEAPOLIS—A "Build-an-Ad" service, designed to provide good illustrations and selling copy on small appliances for electrical dealers to use in their own advertisements, has been established here by the wholesaler and distributor division of North Central Electrical Industries, the organization has announced.

The first issue of the service, which included 12 one column by 2 in. mats of small appliances and mats of a special "Give Electrical Gifts" Christmas promotion, has already been issued free of charge to approximately 600 electrical dealers and contractors in the upper midwest area.

A second issue is scheduled for distribution during the first week of January, according to a N.C.E.I. bulletin.

The illustrations, the bulletin said, do not picture the specific product of any manufacturer, but are an artist's conception of the appliance in question.

Suggested headline and copy for each illustration makes no mention of trade names or prices, it added. The dealer is asked to use trade names and product illustrations of his manufacturer when they are available.

The idea for the "Build-an-Ad"
(Concluded on Page 56, Column 4)

Kelvinator Nets
\$18,097,697; Sells
667,577 Appliances

DETROIT—Nash-Kelvinator Corp. and subsidiaries earned a net profit of \$18,097,697 in the fiscal year ended Sept. 30, 1947, equal to \$4.16 per share on the 4,341,110 shares of common stock outstanding, George W. Mason, president, announced last week. This compares with a net profit of \$2,582,274, or 59 cents per share, in the preceding year, he said.

Net sales were the greatest in the corporation's peacetime history, totaling \$250,262,581 against \$121,556,012 in 1946.

Commercial and household appliance production totaled 667,577 units compared with 322,659 in 1946. Mason said that shortages of sheet steel and enameling iron put a ceiling on production throughout the year. He ex-

(Concluded on Page 53, Column 3)

Senate Committee Votes
For Credit Controls

WASHINGTON, D. C.—A bill to restore limited controls on consumer credit through March 15, 1949, was approved last week by the Senate Banking Committee, as was expected.

The legislation does nothing more than authorize the Federal Reserve Board to reinstate restrictions on installment buying (regular charge accounts would not be affected). What consumer goods would be covered, what amount of down payment would be required, and how much time would be allowed for payment would be determined by the board.

The bill was approved by the committee as Republican leaders came to agreement on an anti-inflation program to counter that of the Administration. It was noted that the GOP program contained no reference to consumer credit controls, but Senator Taft said this did not mean that controls would be excluded.

Closing ASRE
Session Sets
Off Fireworks

By C. Dale Mericle

ATLANTIC CITY, N. J.—Another annual meeting—its forty-third—has gone into the record books of the American Society of Refrigerating Engineers. It followed the usual pattern, except for the last session, about which more later.

Held in the spacious Hotel Traymore on the famed boardwalk here last week, the meeting combined cocktail parties, luncheons, dinners, and dances with technical sessions, the latter being largely devoted to discussions of large size equipment in various applications.

Perhaps the most important contribution to the science of refrigeration as applied to the freezing of foods presented at the sessions was the description of a new method of microscopic analysis of frozen foods.

This new method, it is claimed, permits a much more accurate study of the effects of ice crystal formation of the cell structure of foods during freezing and storage. Its future use may throw much additional light on the problem of determining the comparative merits of quick vs. slow freezing and ideal storage conditions.

As developed and described by J. M. Lebeaux of the University of Texas, this new approach involves a new method of slide preparation and the use of a polarizing petrographic microscope, which by showing the cell components in various colors permits a more positive picture of ice formation.

The most talked-about technical session, however, was the last one, held Wednesday morning. Following the first paper covering the applications of refrigeration to construction of concrete dams, Dr. P. L. Veltman of Davidson Chemical Co. discussed "Desirable Characteristics of Refrigeration Desiccants and Methods of Testing" which he and C. E. Waring had prepared.

This drew considerable fire—upon the authors for some of their testing methods and conclusions drawn—and upon the engineering society for its handling of the presentation and publication of this paper.

The authors of the paper compared Davison's Silica Gel with other trademarked drying agents employed in the refrigeration industry, namely, Activated Alumina, Drierite, Sporan's "Catch-All," and "Sova Beads."

(Concluded on Page 4, Column 1)

Dealer Group Debates:

Shall Trade-Ins Be Handled Through Separate
Jointly-Organized Marketing Operation?

By John O. Sweet and George M. Hanning

FLINT, Mich.—A decision to draw up a proposed code of ethics, a discussion of possible solutions to the trade-in problem, and protests against "borax-type" newspaper advertising marked the December meeting of the local Radio & Appliance Dealers Association.

The motion to establish a code grew out of suggestions that a formal statement of aims would enhance the prestige of the group in the eyes of non-member dealers and the public. It was further voted that a study of the cost of advertising the code in local newspapers and other media be made.

Fear of a return to the "continuing losses on trade-ins" which characterized prewar appliance merchandising prompted the dealers to consider pos-

That's Keynote for 5th
All-Industry Show In Jan.What This Issue
Is All About

Much of the editorial content and a good share of the advertising in this issue tells about the coming Fifth All-Industry Refrigeration & Air Conditioning Exposition to be held Jan. 26-29 in the Cleveland Public Auditorium.

Each year that the All-Industry Show has been held, the News has published a "Pre-Exposition" issue such as this, to stimulate attendance at the Show and to afford something of a "preview" of the many new products that go on display.

For those who will be unable to attend the Show, this issue can prove valuable as an advance "guide" to coming new products and developments in the industry, and thus help in making plans for 1948.

Davidson Heads Up
Thermorite Corp.

ST. LOUIS—Thermorite Corp. has been formed here by B. R. Davidson, veteran of 20 years in engineering and executive positions in the commercial refrigeration field. The firm will engage in the engineering and distribution of an integrated line of commercial refrigeration and refrigerator equipment.

Most of the products will be merchandised through the name "Thermorite" and it is planned that operations will be on a national scale, with distributors appointed throughout the
(Concluded on Page 56, Column 1)

Stoddard To Promote
'Table-Top' and
Lockerator Lines

MASON CITY, Iowa—More extensive distribution of Lockerator refrigerators and home freezers is being planned by the Stoddard Mfg. Co., Inc., here, M. C. "Bill" Stoddard, president and founder of the firm, has announced.

A partial list of the electric refrig-
(Concluded on Page 53, Column 1)

172 Exhibitors Prepare
To Put New Models
On Display to Field

PITTSBURGH—With 172 exhibitors taking all the space offered, the 5th All-Industry Refrigeration & Air Conditioning Exposition running Jan. 26-29 in the Cleveland Public Auditorium will offer the greatest display of refrigeration and air conditioning products ever to an industry that must gear itself to do a major selling job on those products in 1948.

"Sales CAN be great in '48 . . . SELL!" This challenge will be the theme, the keynote of the Exposition.

"At the show you'll see this slogan repeated again and again, with the word SELL in big, bold letters," explains F. J. Hood, Ansul Chemical Co., chairman of the Show Committee. "We want to get across the point that next year will be the industry's greatest unless we fail to get out and sell aggressively."

Some 20,000 members of the industry are expected to be in attendance at the Show, which is sponsored by Refrigeration Equipment Manufacturers Association. Other associations whose membership will hold meetings in Cleveland at or around the time of the Show include: Refrigeration Equipment Wholesalers Association, Refrigeration Service Engineers Society, National Association of Refrigeration Contractors, National Commercial Refrigeration Sales Association, and the Drinking Water Cooler Manufacturers Association (a division of Rema).

The Exposition will be open the following hours (note times during which attendance will be open only to special groups):

MONDAY, JAN. 26

10 a.m. to 2 p.m.—Preview exclusively for Refrigeration Equipment Wholesalers.

2 p.m. to 10 p.m.—Open to the industry.

TUESDAY, JAN. 27

12 noon to 6 p.m.—Open to Refrigeration Contractors, Service Engineers, and Dealers only.

WEDNESDAY, JAN. 28

12 noon to 6 p.m.—Open to the industry.

THURSDAY, JAN. 29

10 a.m. to 4 p.m.—Open to the industry.

(A master program of events in connection with the Exposition appears on page 10.)

One of the reasons for setting aside Tuesday, Jan. 27, exclusively for contractors, service engineers, and dealers, says the Show Committee, is to permit such members of the industry within driving range of Cleveland to make a one-day trip in to the Show, and to be sure of receiving the maximum amount of attention from exhibitors in that day.

The All-Industry Exposition Banquet, scheduled for the first time since the War, will be held on the Arena floor of the Cleveland Public Auditorium at 7:30 p.m. Wednesday, Jan. 28. Continuous entertainment is planned, and there will be no speakers, only a brief word of welcome by E. M. Flannery of Bush Mfg. Co., president of Rema.

The NBC orchestra will play for
(Concluded on Page 56, Column 2)

Fire Razes Locker Plant Nearly Ready for Opening

PORTLAND, Ore. — An uncompleted frozen food locker plant here was recently demolished in a fire of undetermined origin.

The plant, owned by Donald Askew, was nearly ready for opening when the fire caused a total loss of the building with an estimated value of \$25,000.

The fire, which developed around 1:00 a.m., burned through the hollow tile of the building.

Philco Eastern Sales Post

Goes to Ex-Penn Grid Captain

PHILADELPHIA — John L. Utz, former Penn football captain with 11 years of experience in Philco sales work, has recently been appointed manager of the Atlantic Division of Philco Corp.

In his new position as manager, Utz will be responsible for sales in the territory.

Schnacke Dealers To Get 60-Day Price Shift Notice

EVANSVILLE, Ind. — A firm price policy, by which dealers will get a 60 day notice of any contemplated change in prices on Schnacke products, has been established by Schnacke, Inc.

The company, in making the announcement, stated, "We have anticipated that increased production would enable us to absorb the increased manufacturing costs and higher material cost; and so long as things remain as they are, we are now confident that we can do it."

"It must be borne in mind," Schnacke warned, "that the future is uncertain both in regard to higher prices, and particularly now, with a shortage of steel."

"It should be remembered that pig iron and steel are right now in shorter supply and with this thought in mind, you should be able to close the sales where procrastination and the possible thought of lower prices have delayed the actual order."

Edmundson Leaves Carolina Distributor To Start Firm

RALEIGH, N. C. — A. J. Edmundson has announced his recent resignation as general manager of Edmundson Refrigeration Division of First Colony Distributors, Inc. here to form his own business.

The new firm, known as Edmundson Refrigeration & Butcher Supply House, will handle a complete line of market equipment, refrigeration, cutlery, and counter equipment, with special emphasis on serving locker plants, meat markets, and packing houses, Edmundson announced.

United Commercial Sales Co.

Plans Open House for Dec. 20

LOS ANGELES — United Commercial Sales Co. will hold open house Saturday, Dec. 20, in its new quarters at 233 W. 32nd St. here. The company moved in at this address on Dec. 1. Its new telephone number is Prospect 6581.

Flint Dealers Weigh Trade-In Problem --

(Concluded from Page 1)

receiving them, then they should always be kept separate from new merchandise, so as not to detract from the latter.

4. The use of "blue books" might help in giving allowances which will permit the dealer to maintain his average gross margin "if all dealers would adhere to the book."

5. Dealers could refuse to accept trade-ins at all, or at most give the customer a small, flat allowance.

Why should appliance dealers take trade-ins, it was asked, when furniture and clothing dealers do not accept trade-ins on items that provide a higher mark-up than appliances? After all, accepting trade-ins is just another means of cutting list price, some dealers held.

However, others did not seem to be alarmed about the trade-in "bugaboo."

"Trade-ins are not dangerous as long as you don't use them to sell new merchandise," E. S. Dickerson, sales manager for Boswell Maytag Co., commented. "The best way is to sell the new merchandise first and then take the trade-in."

Thus, Dickerson indicated, the trade-in allowance would be low enough to make the transaction profitable.

TRADE-INS REQUIRE JUDGMENT

Lawrence W. Phillips, appliance manager of Smith Bridgman Co., maintained that money can be made on trade-ins. But, he cautioned, "it requires very good judgment."

He was backed in this opinion by Roy Palmer, of Palmer Radio & Appliance Co., who reported that thus far he had been able to dispose of trade-ins profitably.

"Bill" Lifsey, operator of a neighborhood store, told the group he is successfully disposing of used radios through an out-of-town buyer who reconditions and resells them. Lifsey said this buyer takes his trade-ins in truck-load quantities.

Following remarks on the subject by Jay Taylor, comptroller of Smith Bridgman, John H. Wernicke, of the Geo. W. Hubbard Hardware Co., outlined the trade-in dilemma he sees facing dealers in the near future.

GROSS VOLUME IS AFFECTED

Wernicke pointed out that when trade-ins are taken in large volume, gross profit is going to be affected considerably. He reminded his listeners that used appliances require handling, servicing, and reconditioning, and will take up valuable floor space.

And remember, Wernicke stressed, overhead expense applies just as much to used merchandise as it does to new appliances. To maintain his average gross margin, the dealer must make the same percentage mark-up on the trade-in as he does on new units, he declared.

"It should never be necessary to sacrifice all profit on trade-ins," he said. "Automobile dealers never, even in the worst times, put them-

selves into the position of bidding against each other for trade-ins."

He recalled that prior to the war some dealers found themselves with warehouses full of used appliances which they hoped to dispose of profitably. When the appliances failed to move, he said, the dealers became disgusted and called in second-hand dealers to make them an offer.

Thomas Pitkethly, general manager of Smith Bridgman, asserted that when dealers take trade-ins, "they are really taking a mark-down on new merchandise." He added that the automobile dealers' practice of using "blue books" was "the best thing that ever happened to them."

INFLATED PRICING SCORED

Wernicke declared that inflating the price of new merchandise to cover "ridiculous" offers for trade-ins tends to lower the dealer's standing in the community. Customers soon detect the inflated price, he said.

Lyle A. Devlin, field representative of the National Electrical Retailers Association, advised the dealers not to try to compete with price cutters on trade-ins.

"Forget about the newcomers who grab at the last straw to stay in business," he said.

Agreeing that there are now too many appliance retailers, Devlin predicted the excess would be weeded out in a year or two and then "the retailer who keeps a level head and a sane policy will remain to get his fair share of business."

'BORAX' ADVERTISING HIT

Two representatives of Flint newspapers were at the meeting to hear objections to what Wernicke called unethical appliance advertising. He showed samples of advertisements which he termed "illegitimate," "vicious," and "deliberate scare advertising."

One sample offered \$10 for "any old broom" on a new vacuum cleaner. Another urged customers to take advantage of low down payments and long credit terms before Government controls put appliances beyond their reach. He also displayed samples of advertisements which he described as "undignified."

Claiming that these advertisements tend to lower the dignity of all display advertising, Wernicke asked that the newspapers police advertising more diligently. He argued that such advertising hurts the prestige of the newspapers themselves.

One of the newspaper representatives pointed out that while the newspaper may not approve of certain types of advertising, it does not always have the power to control them. He added that as long as those types of advertising sell, they will be used, and that as long as no law is violated, they cannot be barred.

The other representative suggested that the type of customers who regularly patronize "reputable" stores are not the type to be lured by "borax" advertisements.

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The New Post-war INLAND SHUCKER ICE CUBE TRAY

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The new-as-tomorrow Inland Shucker Ice Cube Tray has *everything*... new streamlined beauty... sturdy construction throughout... simplicity and speed of ice cube delivery in any quantity... fast-action freezing of full-size ice cubes. And all these qualities add

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No wonder refrigerator makers, jobbers, dealers, and users everywhere choose the new Inland Shucker Tray. Get complete information about this remarkable new Inland ice tray today!

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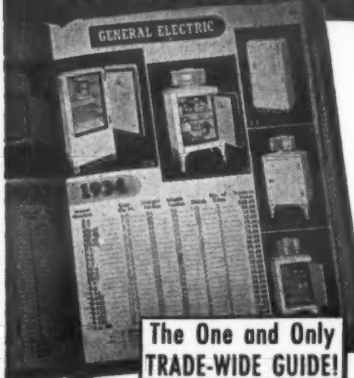
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The STANDARD Reference Manual on REFRIGERATORS and FREEZERS



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Use the Standard Manual to identify and evaluate every refrigerator and freezer accurately.

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NOTE — A limited quantity of current (1946) edition still available for immediate delivery.

STANDARD REFRIGERATOR TRADE-IN MANUAL CO. 503 W. 43rd St., N. Y. 18, N. Y.

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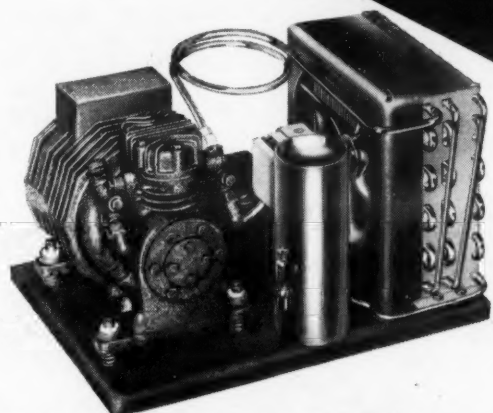
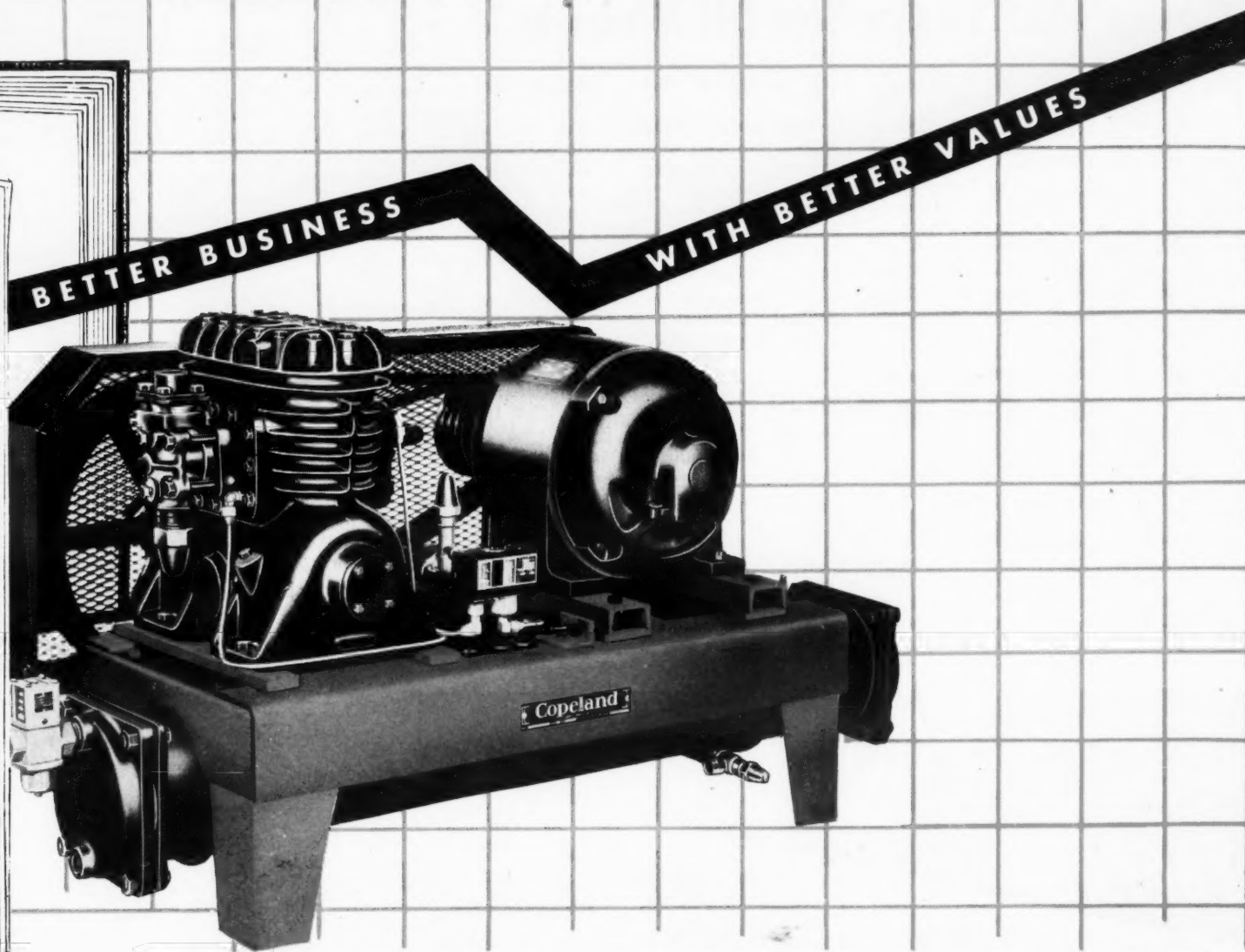
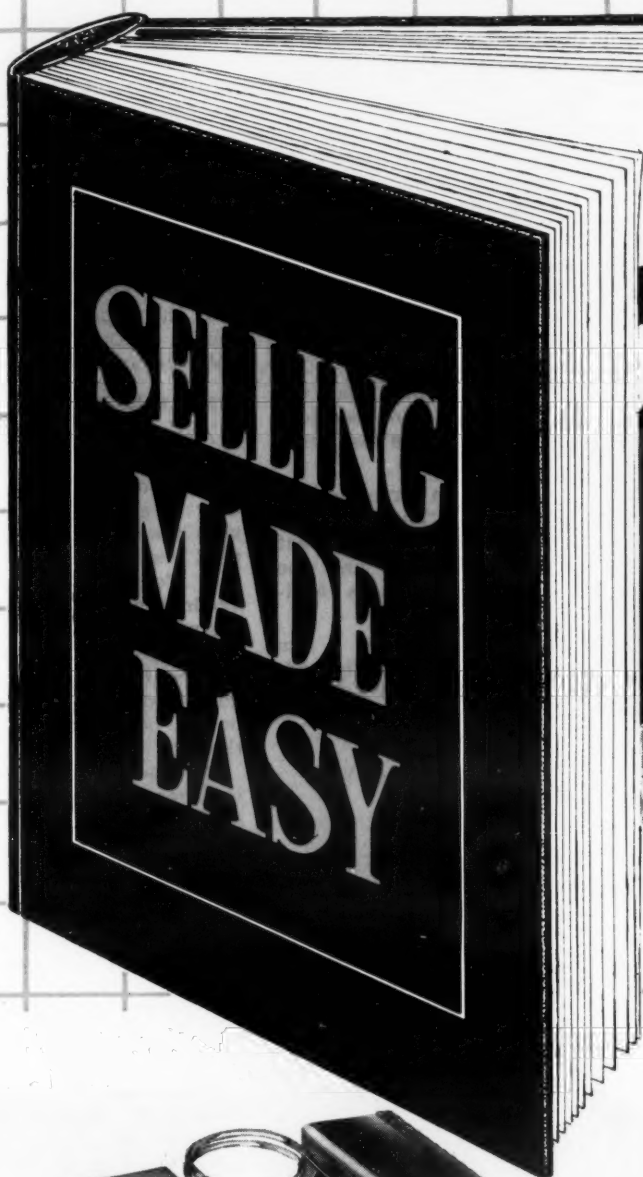
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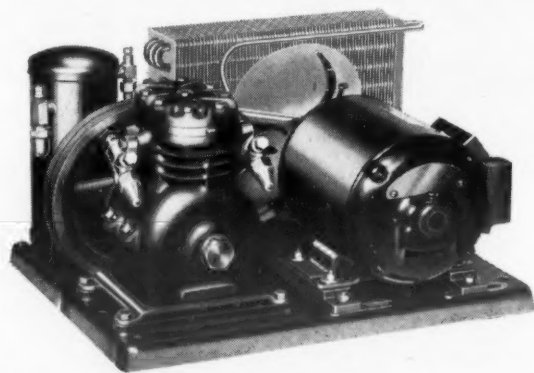
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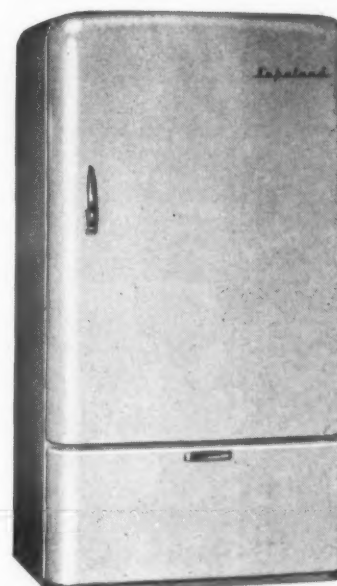
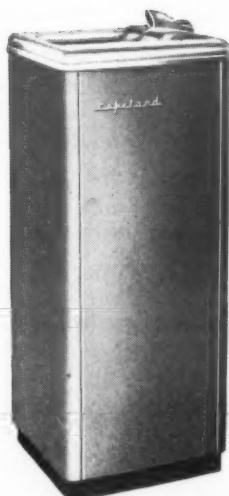
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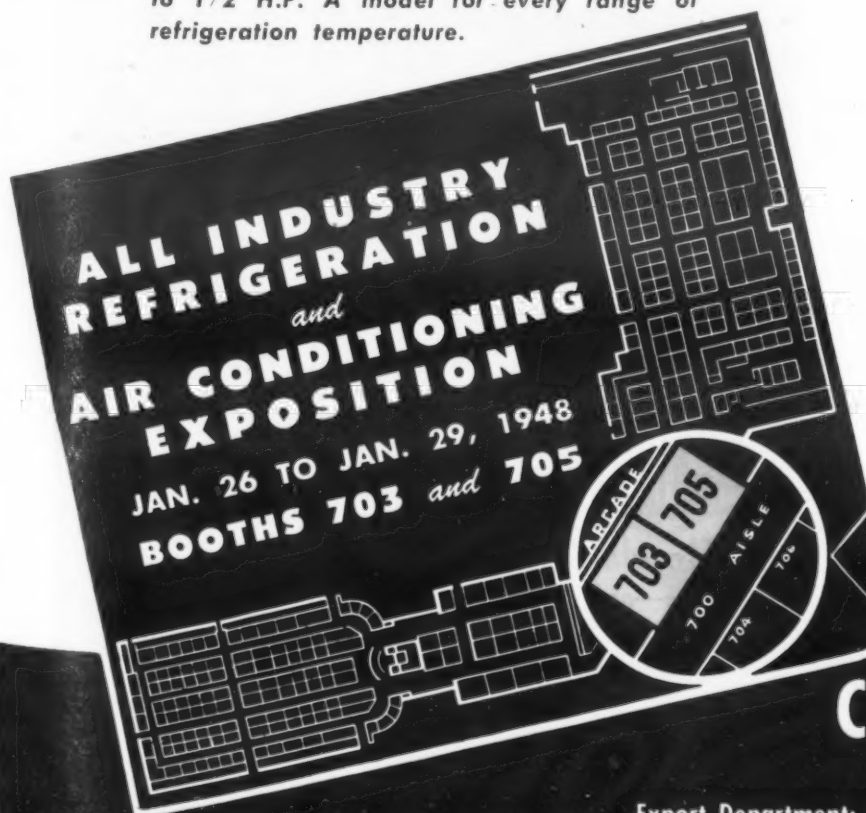
DEPENDABLE *Electric* REFRIGERATION

When you buy smart, you attract smart buyers. The better purchases you make, the easier it is to pass on your good judgment to your trade. It's more profitable too. Here are reasons you (and your trade) will be better satisfied with the Copeland line:

1. Engineered to perfection. For more than 29 years, Copeland has been a recognized leader in research and engineering. Excellence of units has been field-proved.
2. Copeland enables you to quote on any application. Copeland provides a complete line of refrigeration and air-conditioning equipment.
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Meet us at the Exposition in Cleveland.
See the line that sells.



IN THE CENTER OF THINGS

Copeland Refrigeration Corporation

Export Department: 60 Wall Tower, New York City

Sidney, Ohio

New York Office: 71 West 23rd St.

Closing ASRE Session Sets Off Fireworks--

(Concluded from Page 1, Column 3)

Invariably, the test results presented by the authors gave Silica Gel the best rating. The method used to determine "the absolute capacity of a desiccant for removing water from a refrigeration system," which was claimed to be new, consisted of pre-saturating portions of the desiccant under examination to known water contents and then testing the drying ability employing water-saturated "Freon-12."

Discussion following the paper was limited and rather hurried because, as the chairman of the session explained, "the meeting was running behind schedule."

DR. WALKER'S COMMENT

The first comments were made by Dr. Walter O. Walker, director of research for Ansul Chemical Co., who criticized the paper on several points.

"We must take issue," he said, "with the statement, 'The plot is of interest in that it shows the relative ability of the several desiccants to

remove water from a refrigeration system.'"

"All the plot really shows," he declared, "is that a desiccant partially saturated with water is not, in many cases, a good drying agent. Only when the so-called 'useful concentration' of water in the drier approaches its zero value, should we consider the real effectiveness of a desiccant."

"Two things must be considered in evaluating a desiccant or drier:

"(1) Total quantity of water held—and

"(2) Efficiency, that is, the amount of moisture left in refrigerant by the desiccant."

"We have known for several years that Silica Gel was superior in the No. 1 property to the other drier materials and the present paper confirms this. However, since much larger quantities of desiccant are used in drier units than are required, capacity per weight is compensated in all cases by quantity of material. One, two, or more, hundreds of grams

of even Silica Gel are not uncommonly used.

"No. 2 property is the really critical one and for its measurement it is necessary to start with the desiccant holding its minimum quantity of water, that is, completely reactivated. Then," continued Dr. Walker, "if you employ the experimental technique of the authors—incidentally, this was used by us over 10 years ago—the true drying value of the desiccant is obtained."

"It is unfortunate that such measurements are not presented in this paper because both the Sporlan 'Catch-All' and Drierite will by these measurements be shown to be at least equal to Silica Gel. Recent measurements in two independent laboratories show both these desiccants to be entirely satisfactory for use on refrigeration equipment."

Following another brief discussion, Herman Spoehrer, vice president of Sporlan Valve Co., producer of the Sporlan drier, was granted two minutes discussion time.

He strongly criticized the society for its method of handling the paper, pointing out that the paper had not

been submitted to Sporlan for any comments prior to its publication and presentation.

HAD NOT SEEN PAPER

Not only did this prevent Sporlan engineers from having any opportunity to prepare a discussion, but it further could do considerable financial damage to the company, Mr. Spoehrer emphasized.

"I also question some of the material itself," he added. "It has been inferred that it takes five times as much weight of Sporlan 'Catch-All' as Silica Gel to do the same job. This is contrary to independent tests of many manufacturers."

He further pointed out that the Sporlan drier consists of slightly over 50% drying agent, the rest being binder.

"There must be an error somewhere," he concluded. "The Activated Alumina figures shown are different from those for 'Catch-All' and the desiccant used by Sporlan is Activated Alumina."

Dr. Veltman was permitted a few concluding words in which he admitted that he was not aware that

Activated Alumina was the drier employed by Sporlan.

ONE PAPER CARRIED OVER

To top off this session, the final scheduled speaker, O. E. Gammill, Jr., of Carrier Corp., requested that he be permitted to omit the discussion of his paper because the subject "can't be properly presented in 10 or 15 minutes."

This was unprecedented and it momentarily stunned the chairman and audience. The day was saved, however, by a motion from the floor that the paper be held over and presented at the next national meeting. (Motion carried.)

TURPIN NAMED SECRETARY

As for the business operations of the society itself, the A.S.R.E. made two important moves at the Atlantic City meeting. M. C. "Dick" Turpin, who has been acting secretary for the past year, was given the full title by the Council in its final session Wednesday afternoon.

And wedged into that Wednesday morning technical session was a vote by members to increase the society's dues and an amendment to give the power of determining dues over to the A.S.R.E. Council.

By its vote Wednesday morning, the members present okayed the submission of ballots by mail to all members for approval of the new dues schedule and the method of establishing dues.

The present dues and the newly proposed annual dues to be voted upon are as follows:

	Present	Proposed
Full members and fellows	\$15	\$18
Associate members	10	15
Junior members	7.50	10
Student members	2.50	2.50

Promotion from one grade of membership to a higher grade would continue to be charged \$2.50, while the initiation fees would be \$10 for full members, \$7.50 for associates, and \$5 for junior members.

HOLSKE IS PRESIDENT

Reins of the society were taken over by the newly elected officers at the conclusion of the meeting. C. F. Holske succeeds R. H. Money as president. B. H. Jennings is now first vice president; John G. Bergdoll, Jr., second vice president; and Paul B. Christensen continues as treasurer.

New directors include Carl M. Ashley, D. K. Tressler, D. C. McCoy, Robert S. Taylor, C. N. Deverall, and J. G. Woodroof.

Two new sections, Evansville and Toronto, were also formally admitted to the society at this meeting. George Iwashita as chairman of the Evansville group and R. H. Lock as chairman of the Toronto sections, were presented with their charters by Vice President Jennings.

AWARDS FOR BEST PAPERS

Cash awards for the best technical papers given at section meetings and the best published in the society's magazine were presented to the winners—Cecil Boling and R. H. Swart by Warren Farr, chairman of the awards committee.

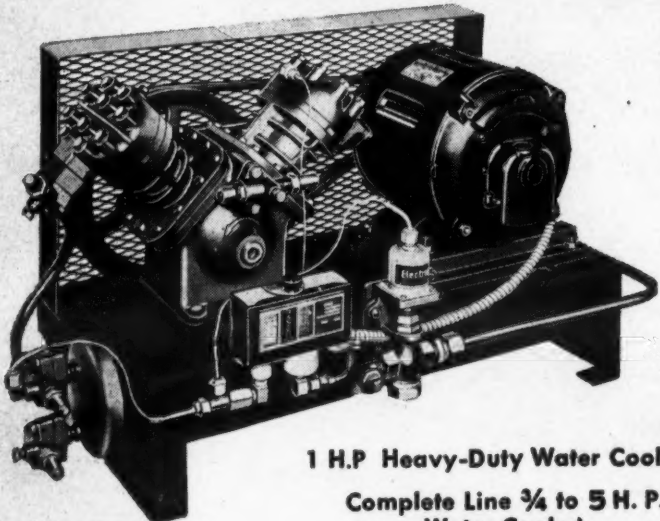
Several committee chairman appointments were also announced by President Holske at the conclusion of the meeting. These include Charlie Logan as chairman of the admissions committee; Jack Stone, constitution; Paul Christensen, finance; Leon Buehler, general technical committee with R. J. Penlener as vice chairman; R. H. Money, nominating; C. M. Ashley, program; D. K. Tressler, publications, with B. H. Jennings and Dr. Mary Pennington heading subcommittees; Herman Spoehrer, sections; R. C. Jordan, standards with Dan Wile as vice chairman; Dr. E. S. Ross, research; Carl Kayan, educational; William Woodside, membership; D. C. McCoy, awards; H. J. Levins, and tellers of election committee.

Oct. Wholesaler Sales 13% over September

WASHINGTON—Wholesalers' sales for the month of October were reported by the Commerce Department as 17% above the same month last year and 13% above those for the preceding month.

October gains over the preceding year were the second smallest this year, according to the report. Wholesale sales for the first 10 months of this year were listed at 21% above the same period of 1946.

Inventories, valued at cost, rose 27% over October, 1946; this was the smallest monthly increase over the preceding year for 1947.



1 H.P. Heavy-Duty Water Cooled.
Complete Line ¾ to 5 H.P.
Water Cooled



¼ & ½ H.P. Package Type
Complete Line
Medium Duty and Heavy
Duty ⅓ H.P. to 2 H.P.

*"And we are all set for
a bigger and better '48"*

Says the LEHIGH TEAM

The lid was really off during '47!

We increased our production capacity.

We widened the BLU-COLD line by bringing out much needed package type units, larger sizes in heavy duty air cooled units, and a range of water cooled units in popular sizes.

We made many new and staunch friends and opened many new accounts for BLU-COLD in this country and by world-wide export.

We cooperated closely with equipment manufacturers and produced special and ingenious types of BLU-COLD units to fit special needs.

New field men were appointed to provide on-the-ground contact for BLU-COLD dealers even in the most remote sections.

A vigorous advertising campaign was started to promote the merits of BLU-COLD equipment direct to thousands of commercial and industrial users of condensing units.

Yes—we had a wonderful time in '47 and, with your usual effective cooperation, we will all do even better in '48.

Meet The LEHIGH TEAM in Cleveland!

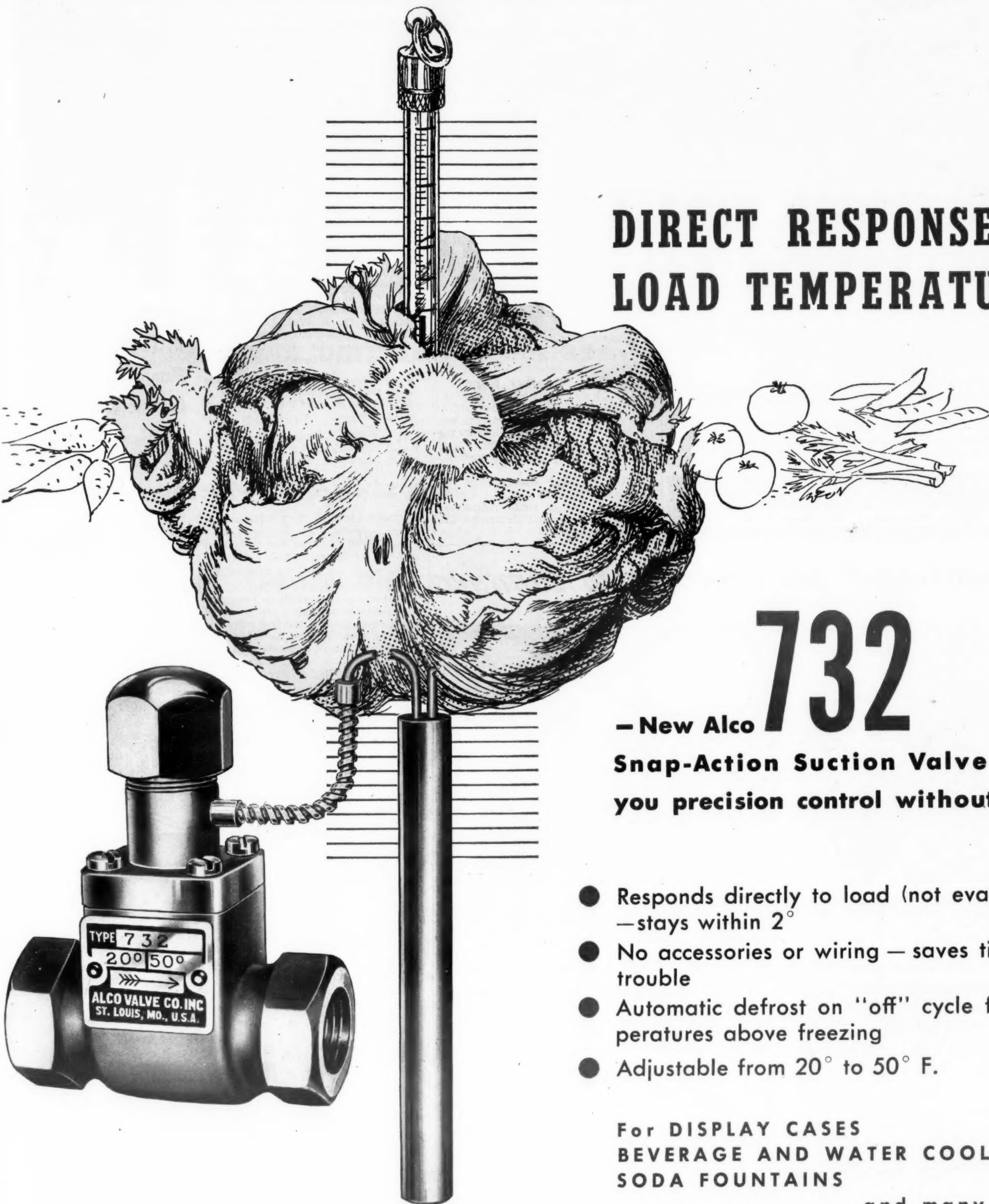
All your Lehigh friends will be on the reception committee—and we mean reception! You'll see, too, the newest Lehigh BLU-COLD Units with interesting and instructive exhibits. So remember—

BOOTHS 226-228



Lehigh Mfg. Co. LANCASTER, PENNA.

DIRECT RESPONSE TO LOAD TEMPERATURE!



732
— New Alco
**Snap-Action Suction Valve gives
you precision control without wires**

- Responds directly to load (not evaporator) — stays within 2°
- No accessories or wiring — saves time and trouble
- Automatic defrost on "off" cycle for temperatures above freezing
- Adjustable from 20° to 50° F.

**For DISPLAY CASES
BEVERAGE AND WATER COOLERS
SODA FOUNTAINS**

and many others

Sold by leading refrigeration supply wholesalers everywhere. Send for Bulletin 732.



Designers and Manufacturers
of Thermostatic Expansion
Valves; Evaporator Pressure
Regulators; Solenoid Valves;
Float Valves; Float Switches.

ALCO VALVE CO.

853 KINGSLAND AVE. • ST. LOUIS 5, MO.

more buy-appeal
with
SHELVES that have
more eye-appeal

★ Shelves are the parts a prospect sees first when she looks inside a refrigerator, and uses most after she buys. Every bit of extra eye-appeal and convenience you can build into shelves pays off in extra sales. For over 40 years we have been building shelves that combine outstanding beauty and sturdiness. Today we are even better able to serve you than ever before, having just completed a million dollar plant addition. We can give you shelving to any specifications in quantities to meet your production schedules. Call or write today for details.



DESIGN CONSULTATION SERVICE...
Take advantage of Union Steel's Design Consultation Service which frequently leads to a better shelf for less money.

UNION STEEL PRODUCTS CO.

531 Berrien St., Albion, Michigan • Telephone: Albion 147

Peru, Argentina Order 30,000 Air Cooling Units

SAN ANGELO, Texas—Air conditioners manufactured in San Angelo, already in operation in many homes and business offices in West Texas, Oklahoma, New Mexico, and Kansas, soon will be in use in Peru and Argentina.

A single order for 30,000 units has been received by Morrison Brothers, who began manufacture of the evaporative type air conditioners here in 1944 on a shoestring basis.

Plans for the expansion of the plant to double its present 4,200 square feet of floor space have also been announced by Vic and R. E. Morrison.

The Morrisons, who turned out 10 air conditioners a week during the four-month season of 1944 with the aid of one helper, expect to have a production of approximately 800 units weekly by Feb. 1, 1948. Upwards of 100 employees will be on the payroll by Jan. 1, Vic Morrison said.

A retail store is also operated by the brothers on N. Chadbourne.

Hotel Cools Another Floor

KANSAS CITY—Another entire floor of the Hotel President here has recently been air conditioned, the Temperature Engineering Corp., 1338 McGee St., completing the installation.

With the latest extension of the cooling facilities, five floors of guest rooms and five of public rooms, including the lobby and mezzanine, are now air conditioned.

Delegates from Chicago Can Reserve Space on Special Rail Coaches

CHICAGO — Arrangements with the New York Central Railroad for special cars to carry industry representatives from Chicago to Cleveland and return at the time of the All-Industry Refrigeration and Air Conditioning Exposition and the Refrigeration Service Engineers Society meeting in January have been made by Albert H. Fine, general manager of the Fine Products Co. here.

Regular Pullman rates will apply to those using these special facilities, Fine said.

He urged all who wish to travel in these cars to make their reservations with him as soon as possible. Tickets will be mailed direct to the purchaser by the New York Central System with bill enclosed, he said. Fine's address is 185 N. Wabash Ave. His telephone number is Central 3092.

Trains that will carry the special cars and their schedules follow:

Leave Chicago	Train	Arrive Cleveland
Jan. 20 11:10 p.m.	290	7:30 a.m. Jan. 21
Jan. 25 2:30 p.m.	98	9:15 p.m. Jan. 25
Jan. 25 11:10 p.m.	290	7:30 a.m. Jan. 26

Leave Cleveland	Train	Arrive Chicago
Jan. 29 4:00 p.m.	73	9:30 p.m. Jan. 29
Jan. 29 11:59 p.m.	89	7:00 a.m. Jan. 30

N. Y. Store Adds Candy Case

BINGHAMTON, N. Y.—Merselis & Bennett, 89 State St., largest retailer of candies in this area, has just added another refrigerated display case.

The store installed its first refrigerated case in March, 1941.

Customers were quick to recognize the freshness of quality candy stored by the refrigerated method. That is why the store decided to expand its refrigerated store, officials said.

Promoted



G. T. ETHERIDGE

G. T. Etheridge Is Sales Manager of Kelvinator Commercial, Parts Dept.

DETROIT—Appointment of G. T. Etheridge as sales manager, wholesale commercial and parts department, Kelvinator division, Nash-Kelvinator Corp., has been announced by C. T. Lawson, vice president in charge of sales.

Etheridge, who has been in the commercial refrigeration sales field since 1933, has been assistant manager of Kelvinator's contract condensing unit department since 1944, it was said.

He joined the Pittsburgh zone of the division in January, 1941, in the commercial department and two years later was named commercial parts and service manager.

Your stomach can't tell winter from summer



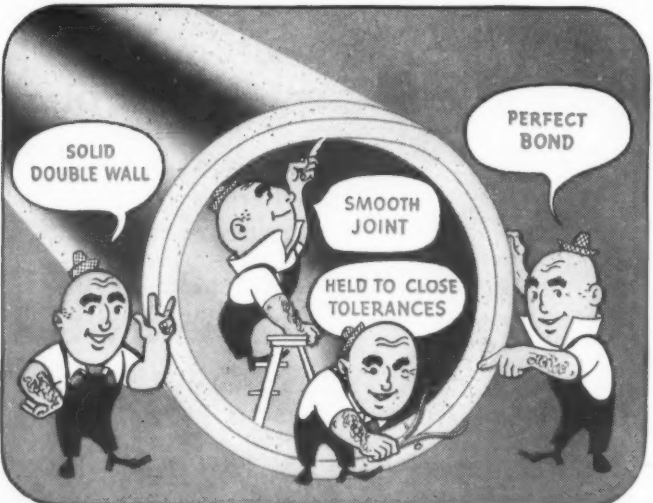
1. **GARDEN-FRESH** peas and corn are tempting lures for many people, while others prefer juicy garden beets or tasty lima beans. Whatever the choice, they agree on this—the fresher, the better! Housewives today can answer this call, even in winter. But they need help to do it.



2. **SILENT PARTNER** in preserving summer freshness all year around is the modern freezer unit. At home or in the store, these units keep food so super-fresh, you can't tell by tasting whether it's winter or summer. But freezing units themselves need help to do this job well.



3. **BUNDYWELD** tubing in condenser and evaporator coils, compressor lines and connecting tubes helps bring dependability in freezer units. Bundyweld's many other uses include carrying fuel, oil, lubricants, vacuums and hydraulic fluids in motor vehicles and gas in modern ranges.



4. **BUNDYWELD** is different from other tubing. A single strip of basic metal, coated with a bonding metal, is rolled continuously twice laterally into tubular form, then metallurgically bonded by intense heat—carefully controlled—to form a solid, double wall tube, held to close dimensions.

BUNDY TUBING



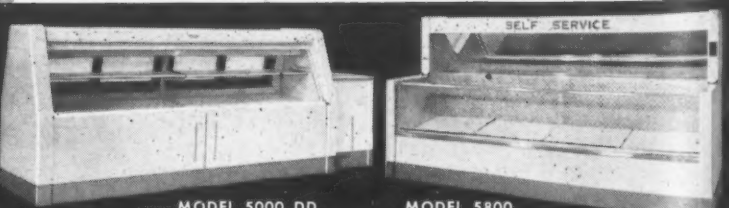
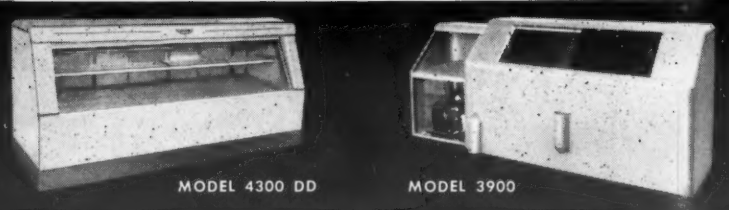
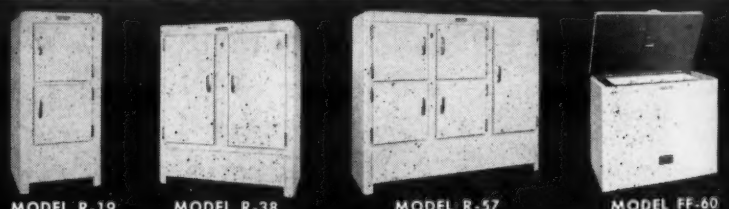
BUNDY TUBING DISTRIBUTORS AND REPRESENTATIVES:

Pacific Metals Co., Ltd. 3100 19th St. San Francisco 10, Calif.	Standard Tube Sales Corp. 1 Admiral Ave. Maspeth, N.Y.C., N.Y.	Lapham-Hickey Co. 3333 W. 47th Place Chicago 32, Illinois	Rutan & Co. 404 Architects Bldg. Phila. 3, Pa.	Eagle Metals Co. 3628 E. Marginal Way Seattle 4, Wash.	Alloy Metal Sales Ltd. 861 Bay St. Toronto 5, Canada
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Peirson-Deakins Co., 823-824 Chattanooga Bank Bldg., Chattanooga 2, Tenn.

We'll Be There! Booth #1021
5th All-Industry Refrigeration and Air Conditioning Exposition

FOGEL THE RESULT-ful LINE



RESULTS...

that can be counted in sales profits—results that add up to greater dealer success and complete customer satisfaction. Yes, for dealers and customers alike, FOGEL'S complete line of Quality-Engineered commercial refrigeration equipment rates *tops* for results. Feel welcome to write for further information concerning this outstanding refrigeration line.

One sales franchise gives you a complete commercial refrigeration line.

FOGEL REFRIGERATOR COMPANY
5400 EADOM STREET • PHILADELPHIA 37, PA.

Manufacturing Since 1899

We welcome the opportunity of meeting you personally and will answer any questions you may have concerning this RESULT-ful Line.

Welcome MEMBERS OF:

Air Conditioning and Refrigeration Machinery Association, Inc.

American Institute of Refrigeration

American Society of Refrigerating Engineers

Commercial Refrigerator Manufacturers Association

Farm and Home Freezer Manufacturers Association

National Association of Practical Refrigerating Engineers

National Association of Refrigeration Contractors

National Commercial Refrigerator Sales Association

Refrigeration Equipment Manufacturers Association

Refrigeration Equipment Wholesalers Association

Refrigeration Service Engineers Society

Soda Fountain Manufacturers Association

—And Our Associates in The Refrigeration And Air Conditioning Industry—

To The 5th All-Industry Refrigeration And Air Conditioning Exposition

Cleveland Public Auditorium January 26-29, 1948

Visit Detroit Lubricator Company Booths No. 503 & 603

"DETROIT"

DIVISION OF AMERICAN RADIATOR & Standard Sanitary CORPORATION

DETROIT LUBRICATOR COMPANY

General Offices: 5900 TRUMBULL AVENUE, DETROIT 8, MICHIGAN

Canadian Representatives—RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG

**"DETROIT" HEATING AND REFRIGERATION CONTROLS • ENGINE SAFETY CONTROLS
FLOAT VALVES AND OIL BURNER ACCESSORIES • "DETROIT" EXPANSION VALVES
AND REFRIGERATION ACCESSORIES • STATIONARY AND LOCOMOTIVE LUBRICATORS**

2930



Total Collected In Mfr.'s Excise Taxes Rises In October

WASHINGTON, D. C.—Substantial increases in the collection of manufacturers' excise tax on refrigerators, air conditioners, and electric, gas, and oil appliances were reported for October, 1947, as compared with collections in the same month last year.

On refrigerators, air conditioners, etc., the government collected \$4,656,405 last October and \$2,826,136 in October, 1946.

On electric, gas, and oil appliances, comparative collections were \$7,881,594 and \$5,246,077.

In the radio sets, components, phonographs, etc., category, a much smaller increase was noted. The figures were \$5,513,134 this year as compared with \$4,996,204 last year.

Savannah Contractor Moves

SAVANNAH, Ga.—The J. S. Farr Co., Inc., air conditioning and refrigeration contractors, has moved from 147 Habersham St. to a newly-erected building at 705 East Henry St. here.

Govt. Tells How Locker Users Can Go 'Whole Hog' on Meat Saving

WASHINGTON, D. C.—Going "whole hog" for the wheat and food conservation program to feed hungry Europe means just that to Ken Warner, senior meat specialist for the U. S. Department of Agriculture, who says that frozen food lockers can make a notable contribution to the program.

Warner is just full of ideas on how frozen food locker renters, "from their preferred situation in regard to food" can make a definite and organized contribution to the food saving program. And many of them, as you might have guessed, involve hogs.

For instance, he advises farmers to "put your hog in the locker when he weighs less than 225 lbs. Less lard produced, but more grain saved."

Other suggestions, that he passes on to locker operators to pass on to their rural customers, are:

"Plenty of fried apples makes the pork go further.

"There's enough pork in a hog's head for several meals of beans.

"Have you ever made cornmeal mush (scrapple) with the meat and soup stock cooked with a pig's head bones?"

"Two sheets of spare ribs sewed together on the edges will serve many relatives—if you pack plenty of stuffing in between the ribs (of both pigs and relatives).

"Pig's feet and sauerkraut—it's a noisy, informal, satisfying meal."

"Saving grain," Warner tells farmers who own lockers, "reduces your feed bill and increases the bread ration of hungry people."

Here are some other ideas of his, excluding hogs:

"Slaughter that beef when only moderately fat. Share that extra feed.

"Freeze those cull hens now! Also cockerels and roosters. Bulk storage is cheaper than feed.

"Stretch stew meat with lots of vegetables. Do you like bay leaf in pot roasts or stews?"

"To carve more attractive (and thinner) slices, cook the roast rare or medium only. Let meat cool and set 30 to 60 minutes. Use a sharp carving knife.

"Do you know ZOOP? It's like hash, only thinner. And it's not so much thinner if you use meat bones for flavoring, and plenty of beans, peas, potatoes.

"Are you set for another big garden next spring? Home grown food is better, cheaper. And it saves commercial stocks.

"Cure it, freeze it! Don't let food spoil."

New Wolverine Depot Opens

DETROIT—A new mill depot has been opened at 11-26 46th Road, Long Island, N. Y., by the Wolverine Tube Division.

The depot will stock Wolverine seamless non-ferrous tube in the form of S.P.S. pipe, copper water tube, and Refrigeration tube and is destined to increase the service to Wolverine customers in the New York area.

Advice on Perishables

Federal Committee Will Recommend Improvements In Refrigerated Storage

WASHINGTON, D. C.—The Cold Storage Advisory Committee, named recently under the Research and Marketing Act, ended its first meeting here Dec. 2.

The Committee of 11 members, after two days of discussion, is preparing a detailed report of its recommendations to be submitted to E. A. Meyer, administrator of the Act.

In the main, the report will include technical advice and suggestions for improvement in the preservation of the nation's perishable foods by refrigeration—from the farm to the consumer.

It was the consensus of the committee that refrigeration of food has become an essential in the nation's food economy in step with higher living standards.

Because of the need for basic scientific information in the refrigeration of farm commodities, the committee recommended for consideration a number of fundamental researches dealing with the effects of low temperatures and ice formation on perishable foods.

A number of important projects in the field of applied science also were offered, dealing primarily with the behavior of perishable commodities—such as poultry products, dairy products, and fruits and vegetables—in cold storage.

The primary objective throughout the discussion of projects was the development of scientific facts of practical value in the retention of nutritional and other properties of perishable foods, the reduction of wastage through the most effective operation of refrigerated warehouses, and the broadening of their services.

Attention also was devoted to certain projects dealing with factors of environment control, such as air purification, modified atmosphere storage, and humidity control.

Committee members, all of whom were present, are: Paul B. Christensen, chairman, and vice president of the Merchants Refrigerating Co., New York City; H. C. Diehl, vice chairman, and director of Refrigeration Research Foundation, Berkeley, Calif.; Vallee O. Appel, president, Fulton Market Cold Storage Co., Chicago; A. R. Current, The City Ice & Fuel Co., Chicago; Arnold T. Hampson, treasurer, Merchants Cold Storage & Warehouse Co., Providence, R. I.; James C. Irwin, vice president, United States Cold Storage Co., Kansas City; C. A. Martin, Noel & Co., Inc., Nashville, Tenn.; Harland J. Nissen, Terminal Refrigerating Co., Los Angeles; S. C. Rogers, G. H. Hammond Co., Chicago; Horace W. Wilson, president, Quaker City Cold Storage Co., Philadelphia; Walter F. Henningsen, Sr., president; Northwestern Ice & Cold Storage Co., Portland, Ore.

Air Cooled, Streamlined Train Starts Run Between Kansas City—St. Louis

ST. LOUIS — Featuring Frigidaire railway air conditioning units in all five passenger cars, the Wabash Railroad's \$1 million seven car streamliner, "The City of Kansas City" began revenue service between Kansas City and St. Louis, Nov. 26.

This is the first streamliner to operate wholly within the boundaries of the state of Missouri. It will make a 5-hour 20-minute daily trip westbound and 5-hour 40-minute service eastbound.

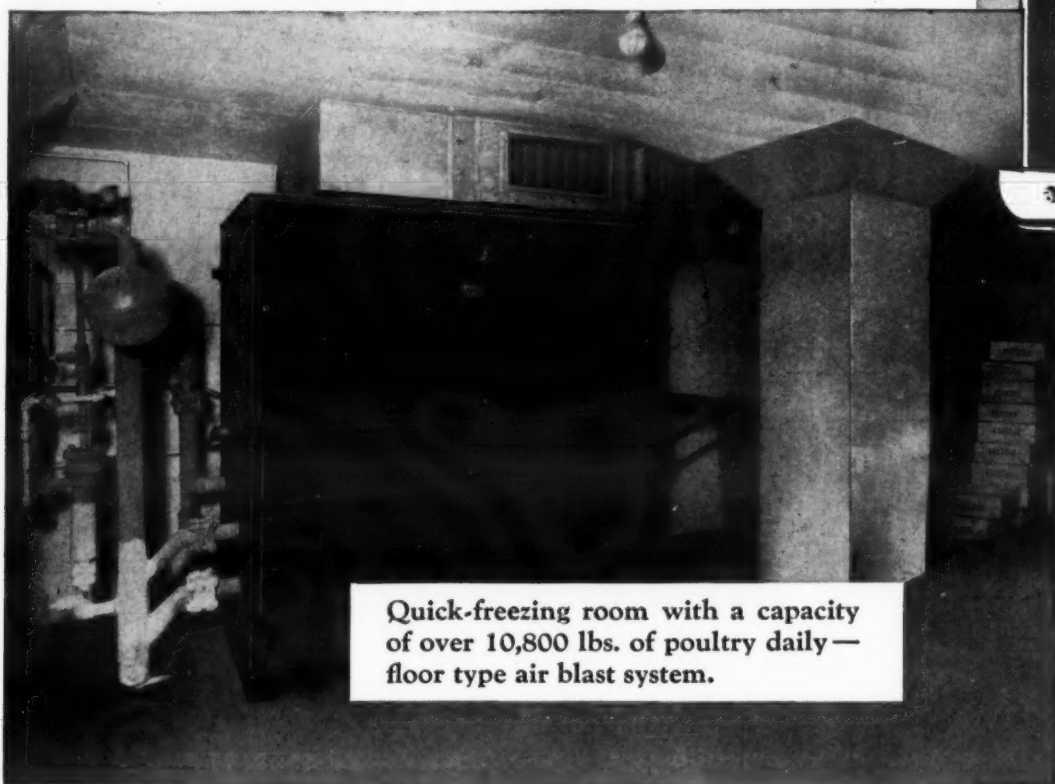
Frigidaire air cooling units consist of four 7-ton units for the chair cars and one 6-ton unit for the dining car. Condensers and compressors are hung from the underframe of each car while evaporator units are mounted above toilets except in the diner where it is above the lounge room ceiling.

Power enroute is obtained from generators geared to each car's axle and through 230 volt standby while the train is in yards. Compressors are 4-cylinder models. Air ducts are continuous, insulated, and arranged with removable panels for periodic cleaning.

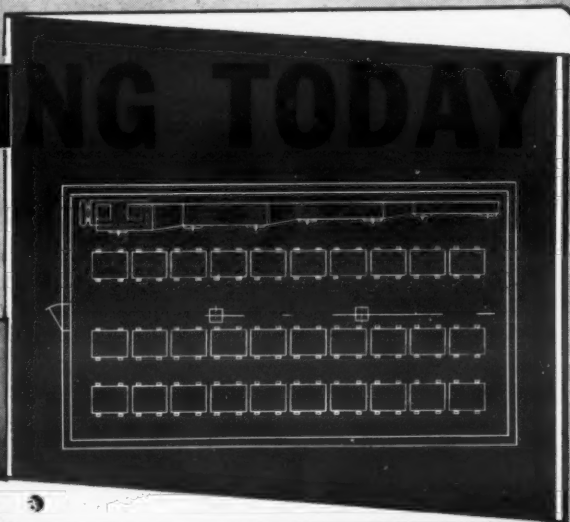
The train was built by American Car & Foundry Co. who purchased and installed the Frigidaire units.

BAKER ENGINEERING TODAY

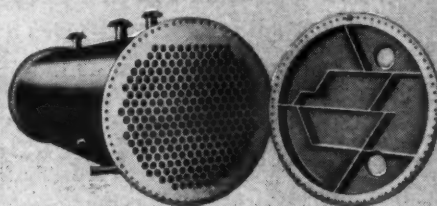
... Better, More Efficient, Economical
REFRIGERATION TOMORROW



Quick-freezing room with a capacity of over 10,800 lbs. of poultry daily—floor type air blast system.

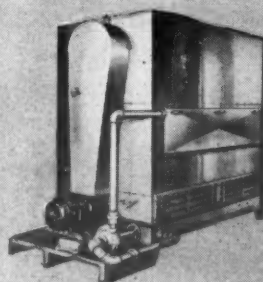


Floor plan showing straight line production, conveyor-trucks and duct-work of blast freezer.

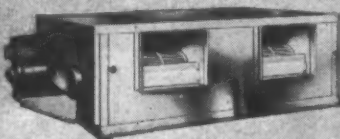


Baker Shell and Tube Condensers, Liquid Coolers, Liquid Receivers.

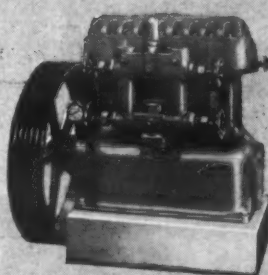
Baker
Evaporative
Condensers.



Baker
Cooling
Units.



Baker Compressors
and Condensing
Units for ammonia,
and Freon.



In that new food processing plant, your most valuable asset will be your refrigeration system—if it's Baker engineered. You can make sure now that you'll have the best, most efficient, most economical refrigeration later, by calling in your Baker engineer.

Your refrigeration needs should be considered carefully in the design of your plant... equipment and plant should be fitted to each other. That's your Baker engineer's job... he's thoroughly schooled in the Baker system of "Zone-Balancing," to give you the precise right temperature in every area, from receiving to freezing. He's ready to design an efficient air distribution system to save you space, time, money. Naturally, he'll recommend the Baker units that best meet your needs... that will last a long time with low maintenance costs.

For the best in refrigeration when you need it, call your Baker engineer today, or write Baker Ice Machine Co., Inc., South Windham, Maine, for case histories of actual Baker engineering and equipment at work.

BAKER REFRIGERATION

FOR BETTER REFRIGERATION—BETTER BUY BAKER

BAKER
ICE MACHINE CO., INC.

SOUTH WINDHAM, MAINE
O'MAHA, NEBRASKA

COME ONE! ALL!
COME COME ALL!
 FOR THE UNVEILING OF THE
 1948 WATER COOLERS




Premier Showing of Westinghouse Water Coolers
At the All-Industry Refrigeration and Air Conditioning Exposition
CLEVELAND, JANUARY 26-29

For five years Westinghouse product development engineers concentrated on *new* Water Coolers to achieve beauty in appearance and maximum efficiency. Now the 1948 Line is the answer . . . available in seven *new* models; a size for every need and a type for every purpose. Each model assures that you can sell Coolers for pure, cool water to every market . . . for the good health of every employee or the good will of every customer.

This complete Westinghouse Line will be unveiled at the All-Industry Refrigeration & Air Conditioning Exposition, Cleveland, January 26-29 at Booth 419. It's a superb line for wide-awake refrigeration dealers . . . a line easiest to sell because every model from the Bottle Cooler to the Explosion-Proof Model includes the famous Westinghouse Hermetically-Sealed Refrigeration System backed up by the 5-Year Protection Plan.

DON'T FAIL TO SEE THE NEW WESTINGHOUSE WATER COOLERS
THE LINE THAT'S MADE TO SELL . . . Booth 419

WATER COOLERS BY Westinghouse . . . A SIZE FOR EVERY NEED

Electric Appliance Division . . . Springfield 2, Mass.

Making Final Plans for the Big '5th'



E. M. Flannery (left) of Bush Mfg. Co., president of the Refrigeration Equipment Manufacturers Association, sponsoring organization for the 5th All-Industry Refrigeration & Air Conditioning Exposition, and J. A. Strachan, The Weatherhead Co., member of the All-Industry Show Committee, pose with one of the promotion pieces boosting the affair which will open Jan. 26 in the Public Auditorium in Cleveland.

Furniss Heads Sales for Page Air Conditioning

CHARLOTTE, N. C.—Jesse W. Page, Jr., president of the Page Air Conditioning Co. here, has announced the appointment of Richard A. Furniss as general sales manager of the firm.

Furniss is a graduate in mechanical engineering of the University of Michigan. He went with the G-E

heating and air conditioning distributor in Philadelphia in 1932. He was with this firm in various capacities, engineer, dealer, manager, and sales manager, for 10 years.

A veteran of World War II, he was discharged with the rank of major. He has assumed his new duties with the Page organization here as director of sales of air conditioning and heating equipment in the firm's territory, which covers most of the western half of the Carolinas.

What You Do To Register and Get an Admission Badge for the Big Show

Pre-Registration Procedures Are Announced

PITTSBURGH—Concentrated efforts are being made to pre-register as many visitors to the All-Industry Refrigeration and Air Conditioning Exposition as possible, so that registration procedure at the time of the Show will be held to a minimum, reports F. J. Hood, chairman of the All-Industry Show Committee.

Hood emphasized that this All-Industry Show would be strictly a "closed" affair, with attendance limited to those in the industry who are active in the industry or who have a legitimate interest in it.

He advised those who have not pre-registered prior to the Show, but who go to Cleveland and register at the Show, to have some credentials in the form of a business letterhead or a business card that will indicate their connection with the industry.

There will be no registration fee for admittance to the Show, Hood pointed out.

The registration booth will be located near the main entrance to the Cleveland Public Auditorium, and all those who have not "pre-registered" can get their admission badge at the Public Auditorium.

Pre-registration will be carried out by the various associations who are meeting in Cleveland in conjunction with the Exposition. Pre-registering will be done both by mail, and also at the headquarters which the associations will set up at the various

hotels. Association members will have distinguishing badges.

Members of the various associations are being urged to pre-register to make the task easier for officials of their own groups and to avoid congestion in the registration procedure generally.

Individuals in the industry who do not have an affiliation with any of the cooperating associations can pre-register by mail by addressing the Refrigeration Equipment Manufacturers Association, 1107 Clark Building, Pittsburgh.

Soda Fountain Makers Plan Design Standards

LOS ANGELES—A five-man board assigned to aid state and national health officials formulate a set of standards for the design of future soda fountains that will meet nationwide sanitation requirements has been set up by the executive board of the Soda Fountain Manufacturers Association.

This was disclosed by Edwin Reynolds, manager of soda fountain sales for the Weber Showcase & Fixture Co. here, who was recently elected to the executive group and appointed a member of the special board.

The sanitation board was scheduled to meet New York State health officials and representatives of the National Health Foundation in New York City some time in December to discuss the first draft of the proposed fountain improvements, he said.

Frigidaire To 'Step Up' Its Activities In the Air Conditioning Field

DAYTON—A series of five-day Regional Air Conditioning schools, geared to the company's current expansion program in the air conditioning field will be conducted by Frigidaire Division of General Motors for district and dealer engineering personnel throughout the country during December and January, states W. F. Switzer, commercial sales manager.

The first training period has already been held by the central region, in Dayton. Similar schools scheduled to follow in four other key cities include: Southwestern region at Fort Worth, Tex., Dec. 8; Pacific region at Oakland, Calif., Jan. 5; Eastern region at New York City, Jan. 19; and Southeastern region at Atlanta, Ga., Jan. 26. Training courses will be in charge of a factory team, comprised of E. J. Boyer and R. Woodward.

Designed to prepare the field organization for a greater volume of air conditioning business in times to come, the schools are the first to be conducted by the company since before war days. The courses, comprehensive in nature, will cover "Fundamentals of Air Conditioning," including such phases as "Theory," "Air Distribution," "Determining Refrigeration Loads," "Selection of Equipment," "Product Application." "In reality," Switzer declared, "Frigidaire is girding itself for the competitive days ahead in the air conditioning business. The company is placing special emphasis on production of room conditioners, store conditioners, and central systems."

Two Supply Wholesalers Become Rewa Members

CINCINNATI—Southern Refrigeration Corp. in Roanoke, Va., and Akron Refrigeration Supplies, Inc., in Akron, Ohio, are the latest companies to be elected to membership in the Refrigeration Equipment Wholesalers Association.

Officers of Southern Refrigeration are William G. Andrews, president; Clifton A. Woodrum, vice president; and Jess Hollar, secretary and treasurer. J. S. Moore is president, Earl Dubin, vice president; Bert R. Armstrong, treasurer; and Ruth L. Miller, secretary of Akron Refrigeration Supplies.

Master Program For All Events In Connection With the Show

WEDNESDAY, JAN. 21

9 a.m.—R.S.E.S. registration. Hollenden hotel.

2 p.m.—R.S.E.S. opening business session, report of officers. Hollenden hotel.

7 p.m.—R.S.E.S. annual "get-together" party. Hollenden hotel.

THURSDAY, JAN. 22

9 a.m.—R.S.E.S. educational session. Hollenden hotel.

2 p.m.—R.S.E.S. tour of plants in Cleveland area.

FRIDAY, JAN. 23

9 a.m.—R.S.E.S. educational session. Hollenden hotel.

2 p.m.—R.S.E.S. educational session. Hollenden hotel.

7 p.m.—R.S.E.S. annual dinner-dance. Hollenden hotel.

SATURDAY, JAN. 24

9 a.m.—R.S.E.S. closing business session. Hollenden hotel.

2 p.m.—R.E.W.A. manufacturers relations committee meeting. Parlor A, Hotel Statler.

2 p.m.—R.E.W.A. trade relations committee meeting. Parlor B, Hotel Statler.

SUNDAY, JAN. 25

9 a.m.—N.A.R.C. registration. Allerton hotel.

9 a.m.—R.E.W.A. board of directors meeting. Tavern Room, Hotel Statler.

Evening—N.A.R.C. board of directors and committee meetings. Allerton hotel.

MONDAY, JAN. 26

8 a.m.—R.E.W.A. registration. Hotel Statler.

9:30 a.m.—N.A.R.C. annual meeting. President's report, speakers. Allerton hotel.

10 a.m.—Preview of All-Industry Exposition (exclusively for wholesalers). Public Auditorium.

12:30 p.m.—N.A.R.C. press luncheon meeting. Allerton hotel.

2 p.m.—All-Industry Exposition (open to entire industry to 10 p.m.). Public Auditorium.

2 p.m.—N.C.R.S.A. board of directors meeting. Hotel Carter.

5 p.m.—Cocktail party given by R.E.M.A. for officers, directors, and secretaries of cooperating associations. Rose Room, Hotel Cleveland.

TUESDAY, JAN. 27

9:00 a.m.—R.E.W.A. annual meeting (first session). Hotel Statler.

9:00 a.m.—Drinking Water Cooler Manufacturers Association (division of R.E.M.A.) meeting.

9:30 a.m.—N.A.R.C. annual meeting. Allerton hotel.

12 noon—All-Industry Exposition (for refrigeration contractors, dealers, and service engineers only—open to 6 p.m.). Public Auditorium.

12:30 p.m.—R.E.W.A. luncheon. Hotel Statler.

2 p.m.—N.C.R.S.A. annual business meeting and election of officers. Hotel Carter.

2 p.m.—R.E.W.A. annual meeting (second session). Hotel Statler.

7 p.m.—R.E.W.A. cocktail party and annual banquet. Hotel Statler.

7:30 p.m.—N.C.R.S.A. annual banquet. Grand Ball Room, Hotel Carter.

Evening—N.A.R.C. board of directors meeting. Allerton hotel.

WEDNESDAY, JAN. 28

10 a.m.—R.E.W.A. regional meetings. Hotel Statler.

12 noon—All-Industry Exposition (open to 6 p.m. to entire industry). Public Auditorium.

7:30 p.m.—All-Industry Exposition banquet (continuous entertainment to 1 a.m.). Arena Floor, Public Auditorium.

THURSDAY, JAN. 29

10 a.m.—All-Industry Exposition (open to 4 p.m. to entire industry). Public Auditorium.

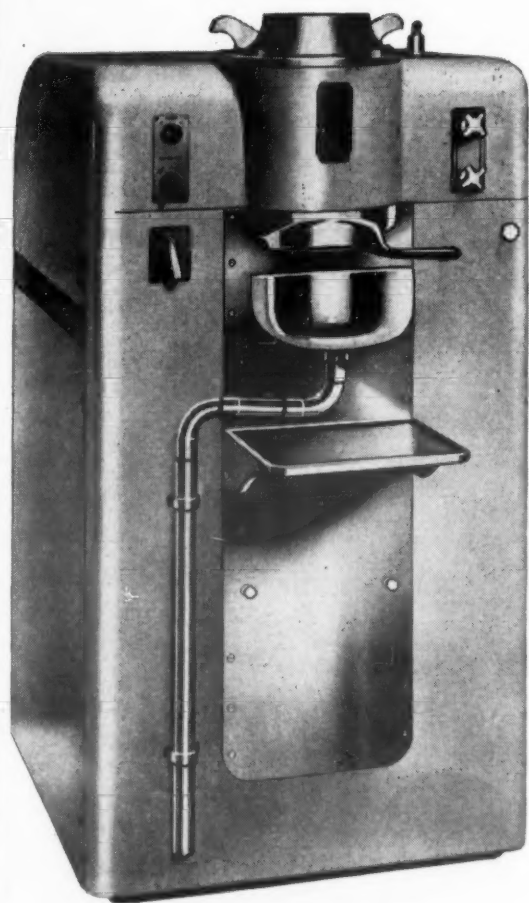
5 p.m.—Meeting of All-Industry show committee and board of directors of R.E.M.A.

ANNOUNCING

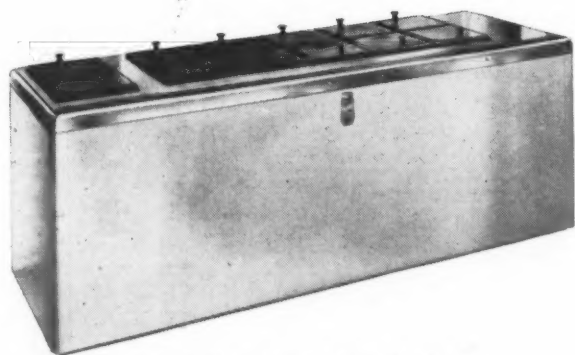
THE NEW

Tuthill

ICE CREAM FREEZER



20 Quart Freezer head self contained



60 Gallon Hardening Cabinet with 20 gallon mix compartment

Again

IN FULL PRODUCTION
ON NEW AND
IMPROVED MODELS

SEE IT AT THE CLEVELAND SHOW

Manufactured by the

COLEMAN EQUIPMENT COMPANY, INC.

7529 SOUTH COTTAGE GROVE AVE.

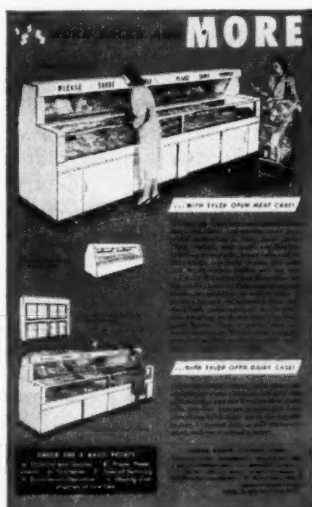
CHICAGO 19, ILLINOIS



NATIONAL MAGAZINE ADVERTISING

Left, half-page ad in a September issue of Saturday Evening Post. Other ads selling HARDER-Freez, and Tyler, are carried regularly in Better Homes & Gardens, Country Gentleman, Farm Journal, Progressive Farmer, Field & Stream, Outdoor Life, as well as in the Post—make almost 100,000 contacts with potential buyers!

TRADE PAPER ADVERTISING



One of the two-page, two-color spreads which highlight the 1947 Tyler campaign in major food-store magazines. Other powerful ads run in magazines reaching restaurants, bars, taverns, hotels, bakeries, locker plants, and institutions—over 5,000,000 Tyler messages!

COMPLETE SALES HELPS

New Manual at right, the Tyler service man's bible—one of many sales and service helps. Others include Sales Manual, complete literature—with a recent trend to full color—stuffers, signs, posters, newspaper mats.

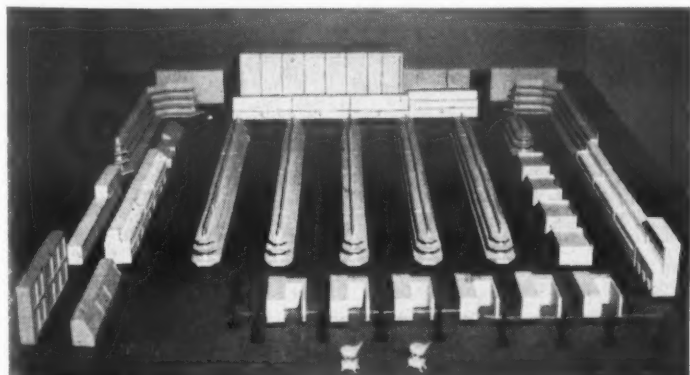
TYLER Parts Catalog and Service Manual



Tyler Fixture Corporation • • • Niles, Michigan

STORE PLANNING ASSISTANCE

The new Tyler Store Planning Service involves setting up each proposed store with scale models of the proper Tyler cases in position, and the submission of photographs to the Agent and prospect for dramatic visualization. Scale Model sets and planning tables are also available to Tyler Agents. It's sales dynamite!



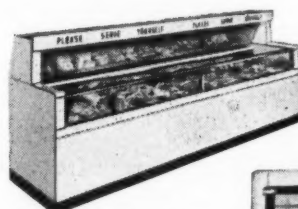
TYLER 20th YEAR HELPING YOU SELL

TWENTY YEARS AGO the late Jerry Tyler, with three employees in less than 1,000 sq. ft. of floor space, started the organization that today employs over 1,000 workers in over 400,000 sq. ft. of factory space in modern plants in Niles, Michigan, Cobleskill, New York, and Waxahachie, Texas.

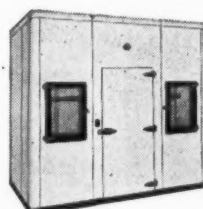
Tyler was first in the field to use welded-steel construction, first to employ modern assembly-line production methods, first to develop and sell steel-clad sectional Cooling Rooms, first to introduce Open, Self-Service Frozen Foods Display Cases, and first to take advantage of multiple plants in the manufacture of Commercial Refrigerators.

From the very first, a major Tyler policy has been to **HELP YOU SELL!** Tyler helps you beat competition with a pledge of quality welded-steel construction and outstanding value based on the best in engineering, design, research and mass-production—with two great lines covering food refrigeration in the store and in the home—with an alert and co-operative sales staff—with aggressive sales promotion and advertising.

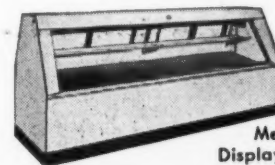
A few popular items in the complete Tyler line are shown below. For complete information write Tyler or see the Tyler Agent.



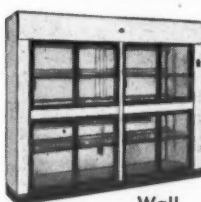
Open Meat and Dairy Case



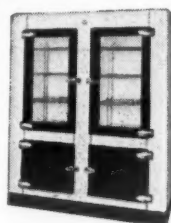
Sectional Walk-In Cooler



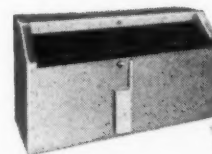
Meat Display Case



Wall Dairy Box



Reach-In Box



Dry-Kold Beverage Cooler



Frozen Foods Display Case

TWO GREAT LINES



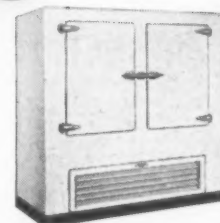
Center Aisle Type



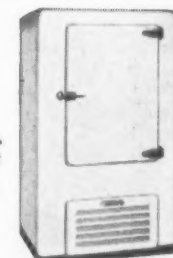
Wall Type

HARDER-Freez Home and Farm Freezers

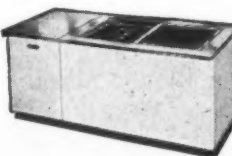
18 cu. ft. Upright



9 cu. ft. Upright

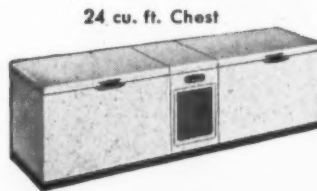


12 cu. ft. Chest



Chest Type

Utility Freezers for commercial use in sale of frozen foods, ice cream, etc.



24 cu. ft. Chest

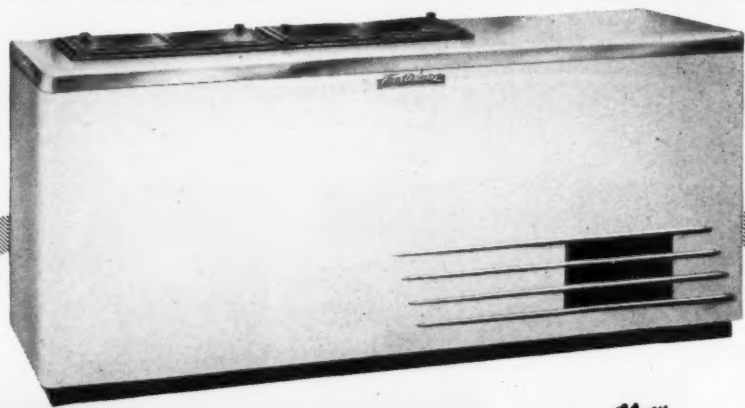


SUB-AGENCIES AVAILABLE. If you would qualify as a Tyler Agent or Sub-Agent write Tyler today! Most territories are now allotted to Tyler Agents, but in many regions Sub-Agencies on the HARDER-Freez line are open through them, to those who meet the necessary sales, display, and service requirements. There is a vast market for this economical home freezer!

TYLER FIXTURE CORPORATION, NILES, MICHIGAN

R-12

**IT'S
TYLER
FOR FOOD REFRIGERATION**



Hole in Line ICE CREAM CABINETS

**ALL STEEL CONSTRUCTION • WELDED THROUGHOUT
VAPOR-SEALED HULL • PULL-OUT UNIT
STREAMLINED BEAUTY**

Monel Metal "35" metal top; Rounded corners;
Flip-Flop covers; Pull-Out unit, easier servicing;
Wider and longer cover openings for easier
accessibility, suitable Imperial Gallon.

**NOTE CAPACITY ON IN LINE CABINETS
ALL SPACE READILY ACCESSIBLE**

2 Hole 10 Gal. • 3 Hole 15 Gal. • 4 Hole 20 Gal.

Manufactured by

Frostedaire
CORP.

Division of WEST SIDE IRON WORKS
801 GREENWICH ST., NEW YORK 14, N. Y. • CHelsea 3-4900

*The New
Frostedaire*

RSES Programs Annual Meeting at End of Week Preceding Exposition

CHICAGO—Registration starting at 9 a.m. on Wednesday, Jan. 21, at the Hollenden hotel in Cleveland will open the four-day 10th annual Refrigeration Service Engineers Society meeting which includes three educational sessions, a tour of manufacturing plants, and an exhibit of service trucks.

The RSES convention will close Jan. 24, just prior to the opening of the All-Industry Exposition.

Members have been invited to drive their service trucks (either custom-built or constructed by their own firms) to Cleveland and display them for the benefit of fellow service engineers. The trucks, which must be pickup panel-type vehicles of one ton or less, will be exhibited and stored in a garage convenient to the Hollenden hotel.

Prizes for Best Truck

Prizes for the best truck in either the custom-built or self-constructed class will be awarded, RSES reports. Winners are to be determined by ballots cast by those visiting the display.

The educational sessions on Jan. 22 and 23 will hear discussions of such subjects as leak detection, the refrigeration of fresh meats, two and three-stage systems, solids in refrigerating systems, truck refrigeration, water towers and evaporative condensers, and safety.

Refrigeration Service Engineers Society

(Hollenden Hotel is official R.S.E.S. Headquarters)

Wednesday, Jan. 21

- 9 a.m.—Registration.
- 2 p.m.—Opening business session.
Report of officers.
- 7 p.m.—Annual "get-together" party.

Thursday, Jan. 22

- 9 a.m.—Educational session.
- 2 p.m.—Tour of plants in Cleveland area.

Friday, Jan. 23

- 9 a.m.—Educational session.
- 2 p.m.—Educational session.
- 7 p.m.—Annual dinner-dance.

Saturday, Jan. 24

- 9 a.m.—Closing business session.

Among the speakers discussing these subjects will be the following:

Dr. W. O. Walker, director of research for Ansul Chemical Co.; A. M. Fenwick, Cleveland refrigeration consultant; A. Sawyer, engineer for Dole Refrigerating Co.; A. M. Schmitz, eastern engineer for the Electric Refrigeration Division of Servel, Inc.; George Schuld, Sr., Cleveland refrigeration engineer; Paul B. Reed, manager of Perfex Corp.'s Air Conditioning and Refrigeration Division; George Clark, director of the Detroit Air Conditioning Institute; and John Spence, service manager for Hussmann Refrigeration. "Warm up" periods preceding each day's educational session have been provided for to afford members the opportunity of bringing up individual service and installation problems. Questions will be answered by a "board of experts."

Visits to manufacturing plants in the Cleveland area are scheduled for the afternoon of Jan. 22. RSES said one such visit is being arranged to cover one of the largest refrigeration installations in the country, where the equipment is used to further

scientific developments in the national defense program.

Two features of the entertainment program are the "get-together" party and dinner the evening of Jan. 21 and the annual dinner-dance the evening of Jan. 23. The price of tickets for members for the two affairs has been set at \$10, including the registration fee (non-members, \$15)—the same as last year.

Women, whether members of the Auxiliary or not, are invited to participate in all the entertainment events of the convention.

Host for the RSES meeting is the young Buckeye (Ohio) State association, which is now meeting regularly to complete details. Local arrangements are being handled by the Cleveland Chapter, a member of the Buckeye association and host to the 9th annual meeting last year.

Hotel accommodations are being assigned in the order received and when rooms at the Hollenden are exhausted, reservations will have to be made with other hotels, according to the association. RSES is asking that reservations be returned not later than Dec. 20.

FOR EVERY BLOWER APPLICATION

THERE'S A **CENTURY MOTOR** THAT
WILL OPERATE
SMOOTHLY • QUIETLY • DEPENDABLY



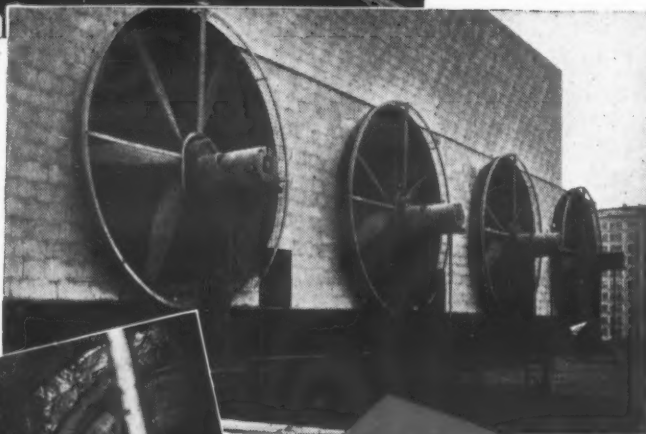
1/2 horsepower Century motor drives a blower in a home—operates very quietly.

Century motors' quiet starting and operating and their unusual freedom from electrical and mechanical vibration contribute to comfortable air circulating in the home, commercial buildings or industrial plants.

There's a type of Century motor protection to meet the requirements of any kind of atmospheric condition—whether clean or dirty, hot or cold, whether indoors or outdoors.

Century builds a complete line of electric motors and generators, fractional and integral horsepower, in the popular sizes to meet the requirements of industrial production, processing, commercial and home needs.

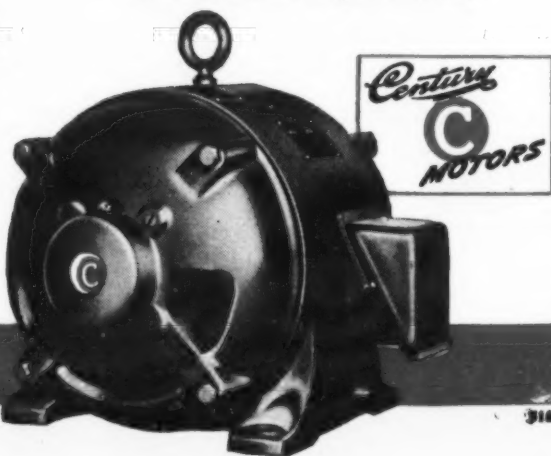
Specify Century for all your electric power requirements.



Four 20 h.p. Century splashproof motors operate a large blower—protected against all weather conditions.



Four 20 h.p. Century motors operate a blower in a large hotel—provides variable speed to meet changing requirements of air conditioning.



CENTURY ELECTRIC COMPANY

1806 Pine Street, St. Louis 3, Missouri
Offices and Stock Points in Principal Cities



THE CARRIAGE-MAKER
Was Good
IN HIS DAY

BUT...

His plodding—time-consuming—methods would be as hopelessly outdated as old fashioned ways of cleaning metals.

Duridine*

CHEMICALS
ACP
PROCESSES

RUST PROOFING AND PAINT BONDING

*Granodine **
*Duridine **
*Alodine **
*Litholam **
*Thermit-Granodine **

RUST REMOVING AND PREVENTING

*Deoxidine **
*Peraline **

PICKLING ACID INHIBITORS

*Rodine **

used in power spray washers of mild steel, provides modern metal cleaning and phosphate-coating that is rapid—effective—economical. It removes oil, grease and other foreign surface matter—phosphatizes—changes the surface to a non-conductive phosphate film of uniform crystalline consistency. "DURIDINE" establishes a lasting adhesive bond for paint finishes. In addition, this bond prevents rust encroachment when painted surfaces are accidentally scratched or dented.

For proper cleaning and effective phosphatizing of metal surfaces—specify "DURIDINE".

*® for Metal Cleaning and Coating Chemicals

AMERICAN CHEMICAL PAINT CO.
AMBLER ACP PENNA.

SO LONG, SHORTAGES!

Now you can get Servel Supermetics

MAJOR PROBLEMS of material and tooling shortages which retarded our production during the earlier months of this year have largely been overcome. Our factory is now humming with a "stepped up" production schedule that means more Supermetics are available.

This means, too, that Servel's customers can now proceed with confidence. Because for the first time since the war we are certain that we can carry through on any firm schedules which are set up at this time. It is important, of course, that we have firm order schedules as far ahead as possible, but this is simply to help us plan future deliveries, particularly on large quantity orders.

SERVEL'S LINE IS COMPLETE

No longer is it necessary to spread orders among several suppliers to obtain all the sizes of units you need. For Servel offers the most complete hermetic line in the industry. Supermetics are available in eight twin-cylinder models of fractional horsepower types from $\frac{1}{4}$ HP thru $\frac{3}{4}$ HP. Integral sizes (1 HP thru 3 HP) are offered in a range of 14 models of four- and six-cylinder designs. They meet requirements of both low and medium temperature applications, with a wide choice of air- and water-cooled types.

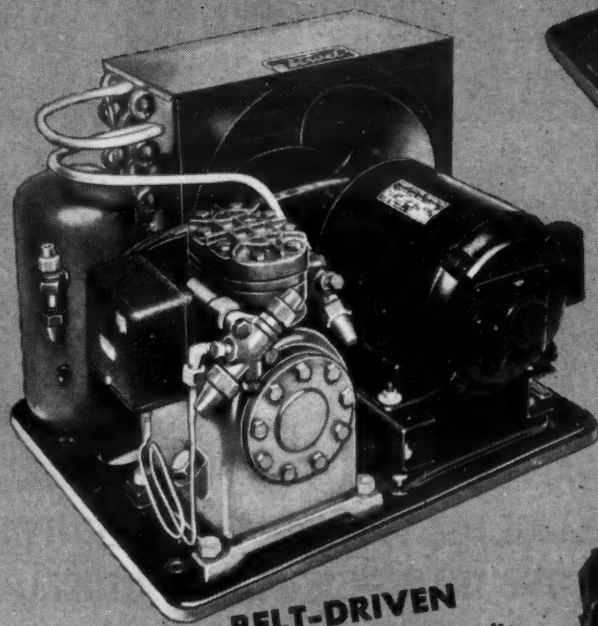
- For low-temperature jobs, you can choose from three fractional HP sizes and seven integral HP models in the hermetic line.
- Five fractionals and seven integral models are offered for standard commercial applications.
- For air conditioning and similar high back-pressure requirements (store coolers, room coolers, etc.), there are hermetic power units in a range of models from $\frac{1}{2}$ HP thru 5 HP.
- Supermetic power units are also available for truck refrigeration, as well as a multitude of other specialized uses.

Servel's belt-driven line of condensing units gives you a further sales advantage with a range of 14 models in sizes from $\frac{1}{4}$ HP thru 2 HP. These sturdily built units are available for both low and medium temperature applications. And, for those customers who provide other elements of their refrigeration systems, Servel offers four sizes of belt-driven compressors from $\frac{1}{4}$ HP thru 5 HP.

DON'T MISS SERVEL'S EXHIBIT!

We'll be expecting you at the All-Industry Exposition. You'll find our exhibit in Booths 429-431-433, just inside the entrance of the Main Exhibit Hall. Let us show you why the Servel line is not only the most complete, but also the simplest, most compactly constructed and highest quality line of commercial condensing units in the industry.

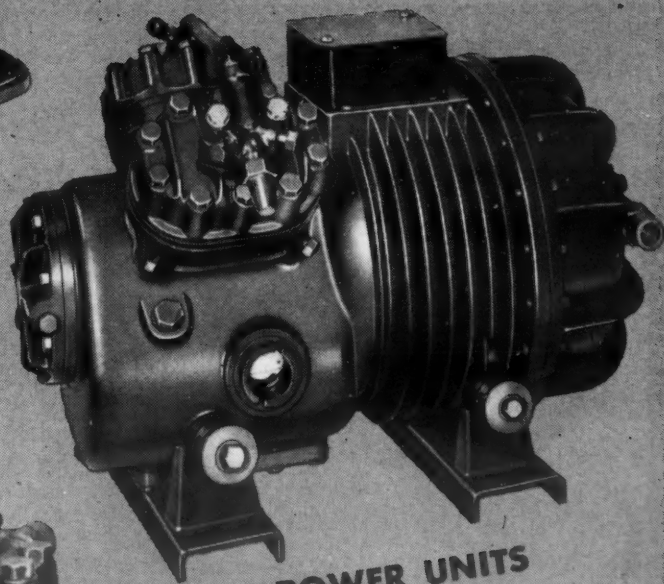
THERE'S A TYPE AND SIZE TO FIT
EVERY APPLICATION



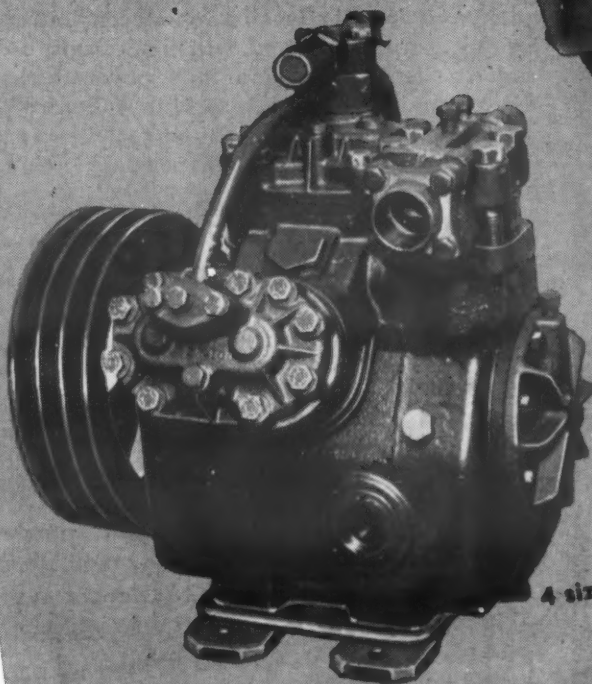
BELT-DRIVEN
14 models belt-driven units.
 $\frac{1}{4}$ HP thru 2 HP.



SUPERMETIC
22 models hermetic condensing units.
 $\frac{1}{4}$ HP thru 3 HP.



POWER UNITS
7 sizes of hermetic units.
 $\frac{1}{2}$ HP thru 5 HP.



COMPRESSORS
4 sizes of compact belt-driven compressors.
 $\frac{1}{4}$ HP thru 5 HP.

Servel Inc.

ELECTRIC REFRIGERATION DIVISION
EVANSVILLE 20, INDIANA

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

when I think of my husband slaving away up North, while I'm enjoying myself like this. . .

"That made me feel like a heel. So I cried, too. And when you cry

as hard as I did every night for three weeks, your eyes get red."

Slight Difference

Niceties of distinctions between word-meanings often are overlooked in this fast-moving age. A few "word purists" remain, however, to plague us. For example:

Not long ago we heard one man argue that the difference in meaning between the words "vision" and "sight" were infinitesimal. The other pointed out:

"On our last double-date, my girl was a vision, but yours was a sight."

Is He Human?

Hoping that he could "tip off" the editor of a small-city newspaper to a good story, Joe Doakes explained over the phone that his uncle had been a regular subscriber to that newspaper for half a century.

"He's always been a model of propriety—doesn't smoke or drink; never uses strong language; hates women, and hasn't ever been to a

theater or the cinema," the nephew explained.

"In fact, my uncle has absolutely no vices or excesses. And he's going to celebrate his 80th birthday tomorrow."

"How?" asked the editor.

People Don't Listen

It's all too true that most people don't pay much attention to what others say to them at cocktail parties.

To win a bet, one believer in this theory greeted his hostess by announcing: "Sorry I'm late, old dear, but it took me longer to drown my wife than I thought it would."

"Naturally," replied the hostess, "so nice of you to have come."

His friends gasped and paid up.

No Comment Necessary

"Will the scar show, Doctor?" asked the girl whose appendix had to be taken out.

"That's entirely up to you," replied the surgeon.

Only a Little Bit Pregnant

Stop me if you've heard this one. I'm getting tired of telling it myself.

In a sort of medium-sized mid-western city, there was a hot feud on between the local newspaper editor and Jake Chauncey, the town's political boss.

The editor narrowly escaped libel suits when he accused the political boss of boondoggling, ballot-box stuffing, and everything else from embezzlement up to highway robbery.

But the Editor hit his highest point with a little story he printed one day at the bottom of Page One. It read:

"A burglar broke into the home of Mr. and Mrs. John Swingle, 4728 Robin St., Wednesday night, and got away with swag valued at \$50. It is only fair to say that on Wednesday night, Jake Chauncey was in New York."

The More the Merrier— And the Stingier

"Daddy," piped up the Presbyterian minister's small son, "the dictionary says that 'congregate' means 'collect.' Is that right?"

"Ah, me," sighed the parson. "If the dictionary says so, it must be true. But I have noted often that a big congregation doesn't mean a big collection."

Suffer the Little Children

Daddy and Mommy were entertaining an important customer at dinner. Mommy had fussed long over the preparations, and had threatened 5-year-old Sonny with everything from the shooting of Santa Claus to no candy for a month if he didn't behave and keep his trap shut during the dinner.

The soup was served. Sonny struggled to keep quiet, but he was faced with an emergency.

"There's a hair in my soup," he finally blurted.

"Nonsense," murmured his mother. "That's just a crack in the dish. Eat your dinner."

Sonny stared at his soup for awhile without touching it—while the distinguished guest talked on and on. Finally Sonny could keep quiet no longer.

"But Mommy," he shrilled, "can a crack move?"

For the Record

Nearly everybody has heard this Scotch joke, but it's so typical that no self-respecting humor anthology can omit it:

A late-comer to the respectable pews of a Scottish Presbyterian kirk arrived with a knotty cane, floor-dusting petticoats, diamond-studded velvet "choker" band, and an immense "ear trumpet."

Sourly hung-over as a result of last night's copious draughts of Duggan's Dew, the kirk's militant sergeant-at-arms viewed the Little Old Lady's arrival with that ear-trumpet suspiciously. Officially clanking up the aisle, he stopped stock still at the side of her pew and warned:

"One toot an' yer ott!"

Poor Pickings for Scavengers

Companion piece to this classic Scotch joke is a rare item—a yarn known only to "collectors."

During the days when sailing vessels plied the Atlantic, the passengers on a ship which had embarked from Aberdeen were trying to alleviate their boredom by sweeping the horizon with binoculars and spy-glasses—hoping to discover some diversions from the daily bill-of-fare of empty sky-and-sea.

"I say," chirruped one far-sighted observer: "There's one of those new steamships. What ho! She's from Aberdeen, too!"

"How can you tell?"

"Easy. No gulls follow her wake!"

She Knew Her Rights

Lillian Russell was probably the most beautiful woman America has ever produced, old-timers will insist—just as they will tell you that John L. Sullivan was a better fighter than Jack Dempsey or Joe Louis, and that "Diamond Jim" Brady was a better salesman than John Patterson or Thos. Watson.

It all depends on your time-sense point-of-view.

There is the story about the Great Salesman (who shall remain nameless) who was involved in a court case. On the witness stand he testified:

"I am the greatest persuader the World has ever known. And I can prove it."

One of his associates, who realized full well the immensity of the stakes involved in this case, asked this testifier, *sotto voce*:

"Why hang yourself out on a limb before the Court by being so unequivocal?"

"My dear fellow," replied his colleague, "it was a simple matter of principle. I was under oath to tell the truth!"

America's Seasons

Phil Redeker, whose ancestry combines the roots of America's Five Earliest Immigration Waves, is a disgruntled fellow. He finds himself working his life away in a particularly unsalubrious climate.

Admiring friends have often quoted Phil as observing that America's Midwest has but three seasons: July, August, and Winter.

They declare that this observation has the hallmark of genius.

But these Redeker satellites are challenged by the presence-of-mind of the born Brooklynite who once described his seasons by saying:

"Just two: Busy and slack."

This Kills Us

Just as an acknowledgedly beautiful woman reveals her age by her reactions to familiar stimuli (such as old songs), so do our automatic belly-laughs date the writer. We love the good old anecdotes. So this story brands us as being ante-diluvian; make the most of it, you cads!

Two old maids went to the butcher shop, in various stages of intoxication. Somewhat pixilated, they threw their offerings into a common pot.

"Ow was your beef?" asked the first spinster.

"Tough as the hinges of Hell," answered her playmate.

"How can you tell?" she asked. "You're still chewing your veil."

Inflation

'Way back in September, 1947, a Scotch traveling salesman dropped with a sigh into a Highland tontorial parlor. The local barber, noticing that the traveling salesman seemed fairly well-to-do, charged him 5 shillings for the shave and haircut.

Thereupon his customer commented on the enormous number of flies which were buzzing around. The barber avowed that he had tried every possible means to get rid of the pests.

"For two pounds," returned the Scottish traveler, "I'll clear the flies out of your shop in less than an hour."

The barber argued about the price, but eventually he paid.

"O.K.," smiled the traveling salesman, while opening the door. "Catch one of those flies, shave him, charge him 5 shillings, and you'll never see another fly or anything else in your shop again."

Another Delaware Product

PREFABRICATED SELF-CONTAINED WALK-IN COOLERS & STORAGE ROOMS

Offers many advantages

NO REFRIGERATION INSTALLATION OF ANY KIND REQUIRED—Completely Assembled and tested at factory. Assemble Walk-In Cooler—push unit into place—plug in for immediate operation.

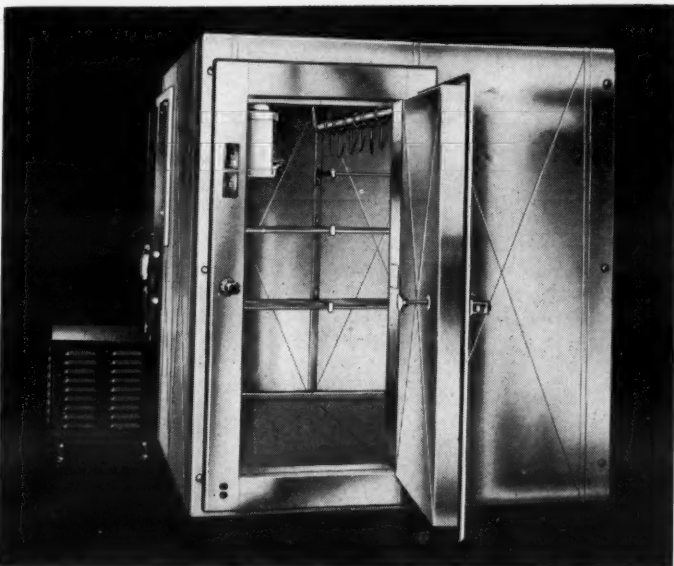
FASTER • ACCURATE • ECONOMICAL

Walk-in Coolers built for Quality and performance—designed for speedy assembly—rod method.

BUILT IN SMALL SECTIONS for portability through small doorways and basements—Interior & exterior aluminum—floor galvanized.

SIZED FOR EVERY NEED—easy to assemble—move or enlarge—locate door any side.

SECTIONS PREFITTED—Rubber gasket mounted on each panel to assure leak-proof fit.



Model 4W77
Available with Rust Proof Steel Shelves, Hook, Rails, Etc.
Write today—don't delay—Franchises for distributors & dealers

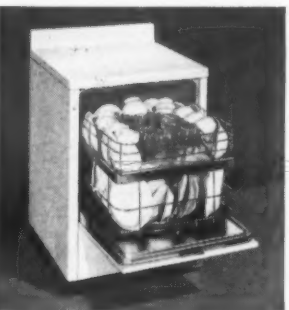
DELAWARE REFRIGERATION COMPANY 834-850 N. Sixth Street, Philadelphia 23, Pa.

Manufacturers of beverage coolers, luncheonette cases, low temperature walk-in coolers and other items.

EVERY MONTH OF THE YEAR!



Hotpoint Electric Range with 11 improvements, 25% more surface cooking capacity, larger oven—a year 'round seller.



Hotpoint Electric Dishwasher. Exclusive front opening provides extra work surface. A great feature—wide public interest in automatic dishwashing assures large-scale selling.



Star performer of America's fastest growing appliance line is the new Hotpoint Refrigerator offering 1/2 more storage in the same kitchen area.

HOTPOINT'S COMPLETE MATCHED LINE OF APPLIANCES MEANS GREATER DOLLAR VOLUME FOR DEALERS—MAKES HOTPOINT THE FRANCHISE WITH A FUTURE!

HOTPOINT, America's foremost planner of Electric Kitchens, focused the attention of millions of home-minded people on matched appliances for the modern kitchen.

...And Hotpoint builds a beautifully matched and complete ensemble of all major appliances. Sold as a "package" in the complete Electric Kitchen, or unit by unit—you'll find it adds up to \$2,000 or more per customer. That's why Hotpoint is the "Franchise with a Future"... why this matched line of appliances means sales every month of the year—greater dollar volume for you.

Everybody's Pointing to Hotpoint —and its 3-Point Program

1. A \$20,000,000 expansion program. New facilities. Dynamic new personnel.
2. A completely matched line of major appliances that makes selling easier—more profitable.
3. Biggest Advertising and Merchandising program in Hotpoint history to carry this story to your customers.

WATCH...

for big full-color spreads similar
to this appearing regularly in leading
national magazines.

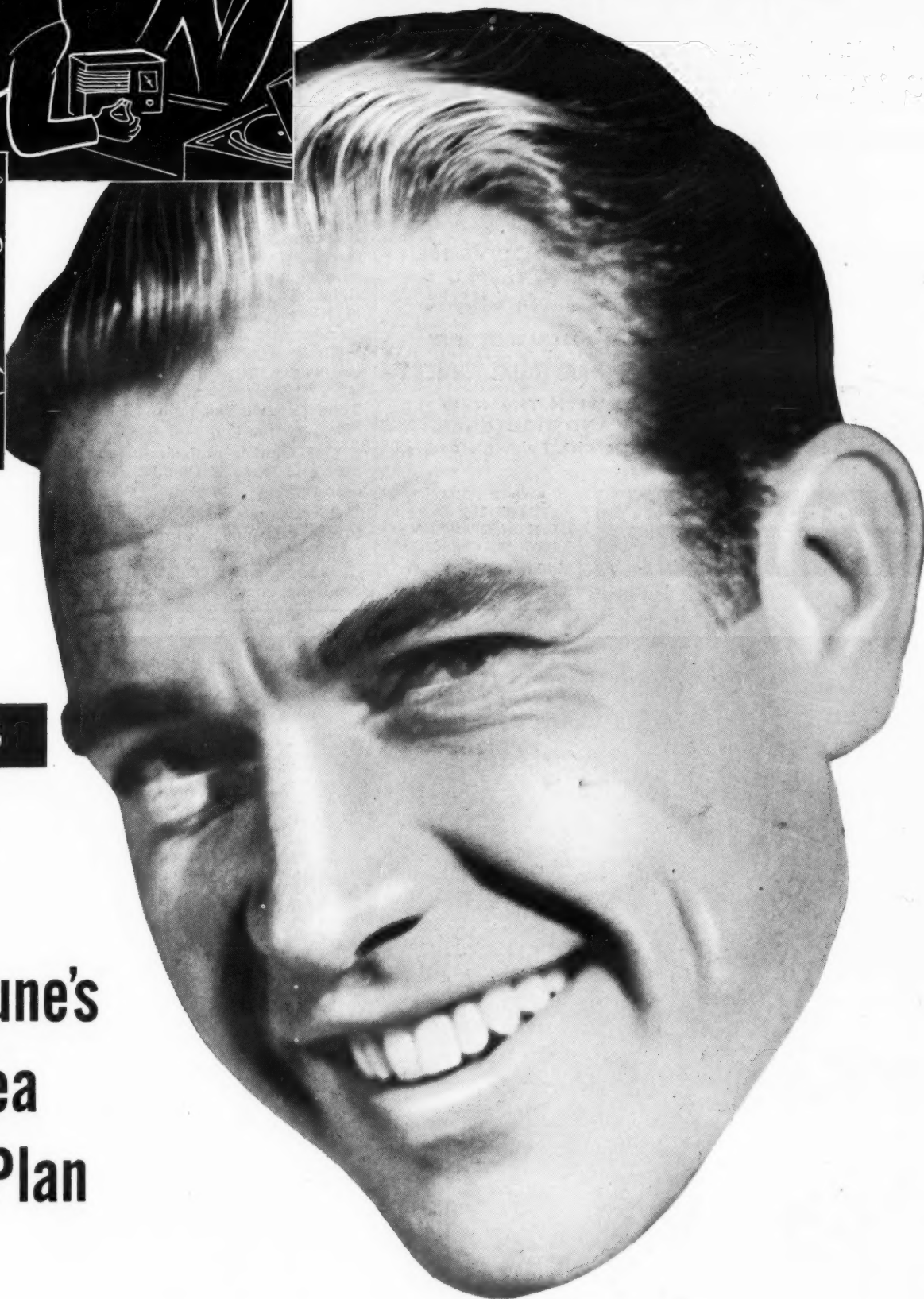
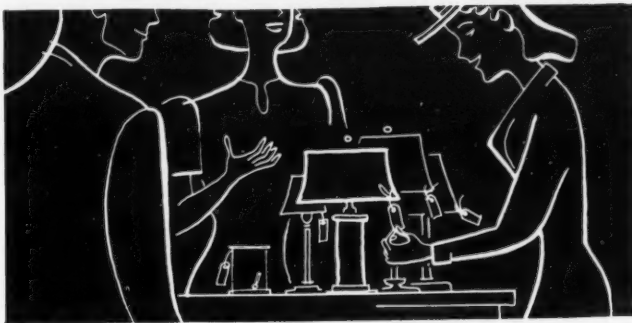


THE FRANCHISE WITH A FUTURE

Hotpoint

HOTPOINT INC. A GENERAL ELECTRIC AFFILIATE

5632 West Taylor Street, Chicago 44, Illinois



**introduce
more customers
to your dealers**

with the
**Chicago Tribune's
Selective Area
Advertising Plan**

HIGHLY PRODUCTIVE ADVERTISING...prepared by you or your agency... issued at the *dealer level*. That's the kind of traffic-building campaign you and your dealers get with the Tribune's Selective Area Advertising Plan.

EACH DEALER GETS:

- 1** Selective coverage of his local market.
- 2** Prominent display of his name and location.
- 3** The low rate of just 2½¢ a line!

YOU GET:

- 1** Better identification of your local outlets.
- 2** Enthusiastic dealer support.
- 3** Advertising that pays off right away!

The Plan gives you a total of *five separate sections* in the Sunday Tribune in which to list your non-competing dealers. You get selective coverage with five advertisements for the price of one. Further, you share the cost with your distributors and dealers. No wasted readership; readers are directed to their nearest dealers! Your dealers attract more customers, increase store traffic. And the result: more sales for you in the Great Chicago Market.

The Plan helps you benefit from the significant market data revealed in the Tribune's Durable Goods Study among consumers and dealers. To learn how the Plan fits your specific needs, write your nearest Tribune representative as shown below.

**PLAN BOOMS RADIO,
APPLIANCE SALES**

Heartily endorsed by radio and appliance manufacturers, the Tribune's Plan is currently sparking sales for Bendix washers, Eureka vacuum cleaners, Admiral and Bendix radios and others. The Plan steps up sales, reduces advertising unit costs. Put it to work for you. Tribune rates per line per 100,000 circulation are among America's lowest.

Chicago Tribune

The World's Greatest Newspaper

October average net paid total circulation:
Daily, over 1,025,000; Sunday, over 1,600,000

A. W. DREIER, CHICAGO TRIBUNE
810 Tribune Tower, Chicago 11

E. P. STRUHSACKER, CHICAGO TRIBUNE
220 E. 42nd St., New York City 17

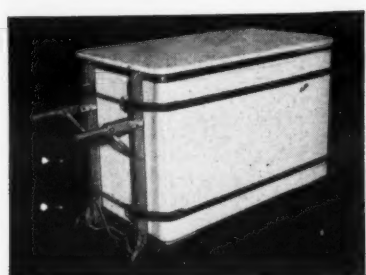
FITZPATRICK & CHAMBERLIN
155 Montgomery St., San Francisco 4

W. E. BATES, CHICAGO TRIBUNE
Penobscot Building, Detroit 26



IT'S HERE
THE NEW **KRAMER**
REFRIGERATION
CATALOG R-125

SEND FOR YOURS
KRAMER TRENTON CO. Trenton, N. J.



HERE IS JUST WHAT YOU'VE BEEN
LOOKING FOR—An Easy Way To
Handle Stoves, Refrigerators & Freezers

PROTECT YOUR MERCHANDISE WITH
THE **ROLL-OR-KARI DUAL TRUCKS**

EQUIPPED WITH THE NEW
WEB-LOCK AND TIGHTENER.
Patented Step-On Lift. Folding Handles.

THE ROLL-OR-KARI CO.
MANUFACTURERS
ZUMBROTA • MINNESOTA

WRITE TODAY
FOR PRICES AND
FULL INFORMATION
1000 LB. CAPACITY
SHIPPING WT. 40 Lbs.

REWA Makes Plans for Its 13th Annual Meeting at Time of All-Industry Show

CINCINNATI—Final details for its 13th annual meeting, to be held during the Fifth All-Industry Exposition, are now being worked out by the Refrigeration Equipment Wholesalers Association.

The association expects a large turnout of members in Cleveland.

Plans to date call for two main sessions the morning and afternoon of Jan. 27, a luncheon and banquet the same day, and meetings of the board of directors and committees on Jan. 24 and 25. All activities will be held at the Hotel Statler, official association headquarters.

New officers and directors will be introduced at the banquet. The present slate includes:

George J. Roche, president; J. F. Wickham, vice president; I. J. Fajans, secretary; A. H. Holcombe, Jr., treasurer; and N. W. Edwards, J. P. Glass, H. W. Holt, E. C. Marsden, H. R. McCombs, J. M. Mideke, W. H. Parker, and J. D. Ross, directors.

Three candidates for directors to be elected for three-year terms are B. V. Blazer (Region No. 2), F. R. Pond (Region No. 7), and H. G. Stern (Region No. 11).

T. I. Glou is immediate past president and H. S. McCloud the executive secretary.

Current members of the manufacturers relations committee are I. J. Fajans (chairman), B. V. Blazer, J. L. Homan, and F. R. Pond. The trade relations committee is comprised of

Refrigeration Equipment Wholesalers Association

(All activities at Hotel Statler, official REWA headquarters)

Saturday, Jan. 24

2:00 p.m.—Manufacturers relations committee meeting, Parlor A.

2:00 p.m.—Trade relations committee meeting, Parlor B.

Sunday, Jan. 25

9:00 a.m.—Board of directors meeting, Tavern Room.

Monday, Jan. 26

8:00 a.m. to 12 noon—Final registration.

Tuesday, Jan. 27

9:00 a.m.—First session of 13th annual meeting (members only).

12:30 p.m.—Luncheon for REWA members and wives.

2:00 p.m.—Second session of annual meeting (members only), election of new directors and officers.

7:00 p.m.—REWA annual banquet (members only), introduction of new officers and board of directors, presentation.

J. P. Glass (chairman), J. H. Downs, H. R. McCombs, and R. L. Hinshaw. REWA's booth in the public auditorium will be open throughout the exposition.

The association's history goes back to November of 1935. It was organized on that day at a meeting of 40 refrigeration parts and equipment wholesalers in Detroit.

These first members decided to call themselves the National Refrigeration Supply Jobbers Association. But early last year, the name was changed to the present form.

About the same time, the group adopted a formal "statement of policy." Among other things, the statement defined the term "refrigeration equipment wholesaler" and established the approved business policy for members. A refrigeration equipment wholesaler, according to the statement (now incorporated in the constitution and by-laws), is a person, firm, or corporation:

"1. Whose major activity in refrigeration is the sale of new refrigeration and air conditioning equipment, parts, and supplies at wholesale to the trade as defined in paragraph (a). (This paragraph defines "trade" as including servicemen, dealers, machine distributors, contractors, ice cream manufacturers, and other recognized trade outlets.)

"2. Who does not sell at retail. "2a. Who does not sell refrigeration merchandise of any description through his own appointed franchised or exclusive dealers.

"3. Who does not perform installation or service, except as noted in sub-paragraph 4.

"4. Who may, however, perform shop repair work at wholesale for the trade only as defined in paragraph (a).

"5. Who does not contract for installation for service.

"6. Who does not compete with the trade as defined in paragraph (a)."



Regardless of what your motor requirements may be—small motors . . . large motors . . . Wagner makes them all. The motor illustrated is typical of the Wagner line of single-phase and polyphase motors.

"Your MOST OBEDIENT SERVANT"

. . . the Wagner Fractional Horsepower Motor

Small in size . . . low in price . . . but it does a thousand different jobs in the stores, the shops, homes, schools and farms of America. Wagner fractional horsepower motors furnish the power to operate quick freeze units, compressors, stokers, pumps, and many other motor-driven appliances.

The unfailing dependability of Wagner Fractional Horsepower Motors has made them the first choice of many manufacturers of small machines and appliances. Millions of these motors have been built in the

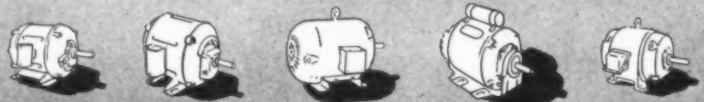
huge Wagner plant, and while they still play "hard to get" they are coming from Wagner's motor assembly lines in ever-increasing quantities to help meet the pent-up demand for these outstanding small motors.

Whether your motor requirement is large or small, Wagner can furnish a motor correctly designed to give you greater continuity of operation. The complete line of Wagner motors covers a wide range of types and sizes for every application. More than half a century of motor building experience

assures the reliability of every motor bearing the Wagner name. Users of Wagner motors also profit by our quick, convenient, nationwide service facilities.

Twenty-nine branch offices, located in principal cities, are ready to assist you, without obligation, whenever you have a motor problem. Write for Bulletin MU-185 for information on the complete line of Wagner Quality Motors. Address Wagner Electric Corporation, 6441 Plymouth Avenue, St. Louis 14, Mo.

Consult Wagner Engineers on all Electric Motor Problems



ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES • AUTOMOTIVE PRODUCTS •

**Coming Attraction at
Booth 1013**



STERLING

**Junior's BIG THREE
ADVANTAGES**

You'll see these advantages: spacious storage, dramatic display, counter-high utility—when you see **STERLING JUNIOR** in Booth 1013 at the all-industry exposition. And—here's an extra! You'll also see the new **STERLING Baker's Case**—latest unit released by Minneapolis Showcase and Fixture Co. Examine them both for the quality construction and unusual versatility that makes these two counter-high cases **STERLING** buys for food department or small store.

STERLING cases are nationally distributed and nationally accepted. A few territories are yet available for dealers. Write now for details.

**23 Years
Quality
Service**

Minneapolis Showcase and Fixture Co.
1011 WASHINGTON AVE. S. • MINNEAPOLIS, MINN.

This message is for High Powered Executives only...

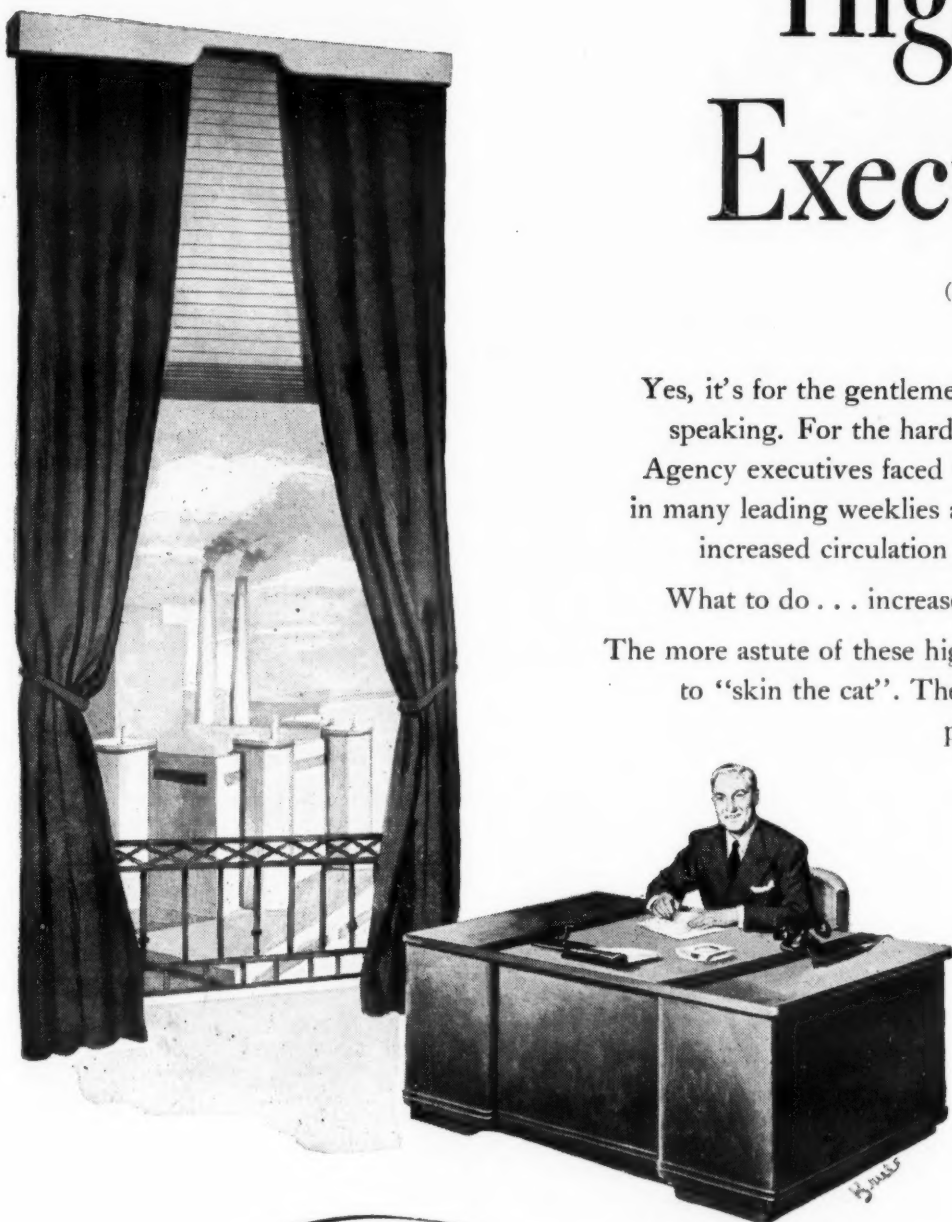
(Reading Time—50 seconds)

Yes, it's for the gentlemen who have to "skin the cat", financially speaking. For the hard-hitting Sales Managers, Advertising and Agency executives faced with the spiraling costs of magazine space in many leading weeklies and monthlies. Higher costs that offer no increased circulation guarantees, no larger bonus circulations!

What to do . . . increase ad budgets? . . . decrease ad insertions?

The more astute of these high-powered men have found another way to "skin the cat". They've examined Liberty's exclusive "plus package". They've found, point by point, it is '48's most *profitable magazine buy*.

We suggest you investigate.
You'll undoubtedly be startled.



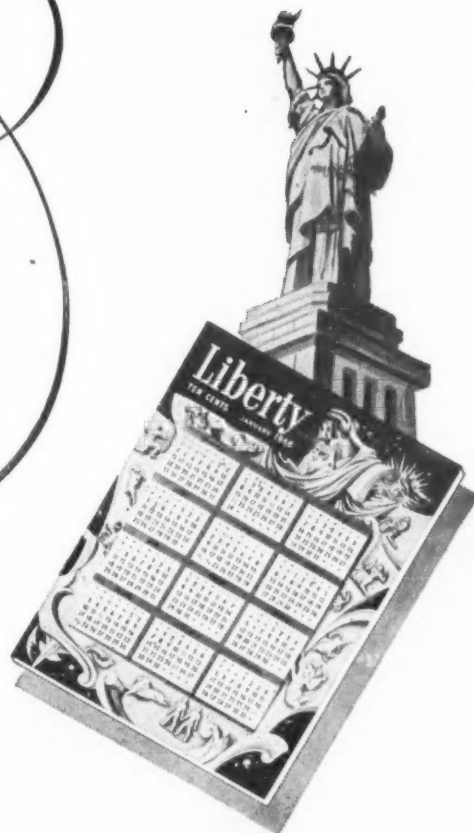
Here it is . . . **LIBERTY'S EXCLUSIVE "PLUS PACKAGE"**. It's producing results for many leading advertisers.

1. Greater ad visibility because of 50% editorial to 50% advertising policy.
2. Greater ad readership in both four color and black and white as proved by Starch.
3. Climbing, steadily climbing circulation. Liberty is the *only* general magazine among the 3 top weeklies and 4
4. An active buying readership of over 7,500,000, the majority under 45 years, who are in the *acquiring* periods of their lives.
5. Low base rates give *absolutely* highest circulation per advertising dollar.

*Yes, there's
Activity in Liberty!*

LIBERTY MAGAZINE, INC. Paul Hunter, Publisher

Advertising Offices . . . New York, Chicago, Detroit, Los Angeles



PREVIEW!

On these and other pages throughout this issue the NEWS presents a "preview" of some of the exhibits scheduled for the Fifth All-Industry Refrigeration and Air Conditioning Exposition, thus affording readers the opportunity of "spotting" various displays in which they may have a particular interest.

New, Possibly Smaller Units In Tecumseh Setup

Several new models in the line of hermetic compressors and units produced by Tecumseh Products Co., probably including a small domestic hermetic, will be exhibited for the first time at the exposition.

They will be shown in space 708 along with the complete conventional line ranging from $\frac{1}{8}$ to $\frac{1}{2}$ hp. and the rest of the full hermetic line covering the range from $\frac{1}{8}$ to $\frac{1}{2}$ hp.

Most of the hermetic models up to and including $\frac{1}{8}$ hp. are internally spring mounted and a part of them designed for "Freon-22," the firm reported. It said the conventional line is practically unchanged from last year.

Among those manning the Tecumseh booth will be C. M. Brown, F. K. Smith, L. W. Larsen, F. G. Purcell, F. E. Sutton, and J. K. Touborg.

'Mystery' Surrounds New M-H Electronic Controls

Included among the 20-odd automatic control instruments for refrigeration and air conditioning which

Minneapolis-Honeywell Regulator Co. is going to bring to the exposition will be several new electronic controls and control systems for both fields.

The company gave no further descriptions of the new items. Three working model demonstrators of controls for the two fields will complete the display in space 701.

The list of personnel assigned to the show includes G. M. Kingsland, manager of the company's Specialty Division.

G-E To Spring New Commercial Models

General Electric Co.'s Air Conditioning Department will introduce "several new items of equipment and packaged products which should attract the interest of the trade."

But the department gave no hint of what these products will be. Alvin N. Sarasohn, of the advertising and sales promotion division, explained that the present status of plans does not permit an announcement as yet.

Along with the new items, an extensive line of refrigeration and air

conditioning products will be displayed in booths 115, 117, 416, and 418.

G-E, personnel planning to attend the show are W. F. Benoit, W. G. Cox, W. F. R. Karsten, G. E. Simons, R. C. Lindblom, C. M. Rowland, J. G. Mooney, J. F. Murphy, F. J. O'Connor, T. A. Armstrong, M. Moran, and Sarasohn.

Restyled Par Units To Fit 'Tight Quarters'

Lynch Mfg. Corp. will use the exposition to show off four Par heavy-duty condensing unit models that have been restyled for installation in tight quarters.

The closer-coupled models are HA2, HA3, HA5, and HA7, of $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and 1 hp. respectively. They require far less space when used for self-contained applications, according to the firm. The models are also for remote applications.

Also on display in booths 102 and 201 will be the regular Par close-coupled models and Par heavy-duty commercial models.

Ranco Will Exhibit New Control Models

In spaces 310 and 312, where Ranco will set up shop for the show, visitors will look over the firm's complete line of domestic and commercial refrigeration controls for both new equipment and replacement use.

Improvements include new power elements.

Scheduled to go to Cleveland to man the exhibit are R. R. Dunlop, secretary; G. E. Graff, sales manager; W. H. Stanley, assistant sales manager; and C. M. Spielman, R. G.

Raney, and M. S. Vidis, of the sales department.

Paley To Show 'Lo-Boy' Home Models, New Cases

In addition to its line of commercial cases, Paley Mfg. Corp. of Brooklyn, will give prominent display to its new $3\frac{1}{2}$ -cu. ft. "Lo-Boy" household refrigerator at booth No. 910.

This new household box measures only $34\frac{1}{2}$ in. high by 24 in. wide and 22 $\frac{1}{2}$ in. deep, making it adaptable for counter or under-counter installation in small kitchens. Fitted with automatic interior light, two ice cube trays, and two shelves, the refrigerator is powered by a $\frac{1}{8}$ -hp. "Freon-12" hermetic unit.

The commercial equipment to be featured includes open self-serve dairy and frozen food cases and a self-contained beverage dispenser for counter or bar.

The open dairy case is of double-duty design with Paley's "double-coil forced-draft refrigeration," claimed to assure 38° F. temperature constantly throughout the open compartment. Measuring 84 in. long, 62 in. high, by 33 in. wide, this case provides 20.7 cu. ft. of storage space and 11.5 cu. ft. of sales space. It is fitted with a mirrored superstructure for wall display, or a center-mounted superstructure for between-aisles location.

Similar superstructure arrangements are available for the open frozen food cabinet, the dimensions of which are approximately the same as the dairy case. The frozen food cabinet is of 20-cu. ft. capacity and is refrigerated on all four sides by a tank-type evaporator-liner.

Featured construction of the self-contained beverage dispenser are its three synchronous valves. This dispensing unit measures 42 in. high, 30 in. long, and 24 in. deep.

Albert A. Paley, president, heads the personnel who will man the booth, assisted by J. J. Spiegel, treasurer; M. M. Kassof, assistant sales manager; and J. Huntington and Edward A. Stiller, salesmen.

McCray's New Frozen Food Case To Be Displayed

McCray Refrigerator Co. announces that it will bring two of its commercial units to the show—the recently introduced 8-ft. self-service display case for frozen foods (Model GF-8) and the 30-cu. ft. Koldflo reach-in refrigerator (Model SA-30-G).

Specially-designed coiling in the frozen food case consists of a series of vertical plates forming compartments, McCray reports. Sloped back to front, these plates and a horizontal plate coil toward the rear are equipped with a special eutectic solution to permit continuous refrigeration.

Other features to be emphasized at the exposition include louvers on the inner liner which are ventilating devices to prevent moisture infiltration into the insulation, a sliding insulated cover with a price tag rail on the front edge, a special built-in moisture eliminator, and illuminated signs. The case is said to hold about 7,000 standard size packages.

Like other McCray reach-ins, available in both solid and glass-door arrangement, Model SA-30-G is equipped with the Koldflo "packaged" refrigeration system. In this system, it is explained, cold conditioned air is discharged on the floor of the fixture and allowed to filter gradually upward to the ceiling where it is sucked into the cooling chamber by means of a plain fan assembly.

Home office personnel who will attend the show are J. W. Hart, executive vice president; R. J. Rewinkel, vice president in charge of sales; D. J. Greiling, chief engineer; R. E. Abbott, assistant sales manager; G. K. Bently, in charge of research; H. Strang, laboratory engineer; H. W. Ziebell, district sales manager; and W. L. Herald, advertising manager.

Beverage Cooler and Beer Dispensers In Ideal Booth

An 8-ft. giant "Army Style" blower-type dry beverage cooler that was originally designed during the war for post exchanges will be among the refrigeration equipment exhibited by Ideal Cooler Corp.

For remote installation, the cooler has a capacity of 47 cases.

Ideal will also display: a two half-barrel "Speed Freeze" draft beer cooler for remote installation (also available in 3 half-barrel, either size self-contained or remote installation), an 8-ft. self-contained "Speed Freeze" blower-type dry beverage cooler of 28 $\frac{1}{2}$ -case capacity, and a 20-cu. ft. self-contained "Speed Freeze" frozen food cabinet.

All products have been redesigned.

In Ideal's booth (902) you'll find Louis Weiss, Harry E. Creighton, Max Uhl, and Frank A. Thierheimer.

NO WONDER KEROTEST VALVES

..... serve so well!
..... cost you so little!

Kerotest Valves and Fittings are precision engineered and precision made to give the kind of accurate and long lasting service your good reputation demands.

At Kerotest, every department is a precision shop where high accuracy machines guided by skilled craftsmen perform every operation the best way. Every part... every valve... every

fitting, must meet Kerotest's exacting quality standards... your assurance that every one will "serve so well."

Modern production methods make Kerotest Valves and Fittings economical, too. Kerotest wants to assure you a fair profit... your customer good value at a price he can afford. Next time you need valves, ask for and buy Kerotest!

KEROTEST MANUFACTURING CO.
PITTSBURGH 22, PA.



See your **KEROTEST** Wholesaler
AMERICA'S FIRST NAME IN QUALITY VALVES

A New Better Different



SEE US AT
CLEVELAND
BOOTH 125

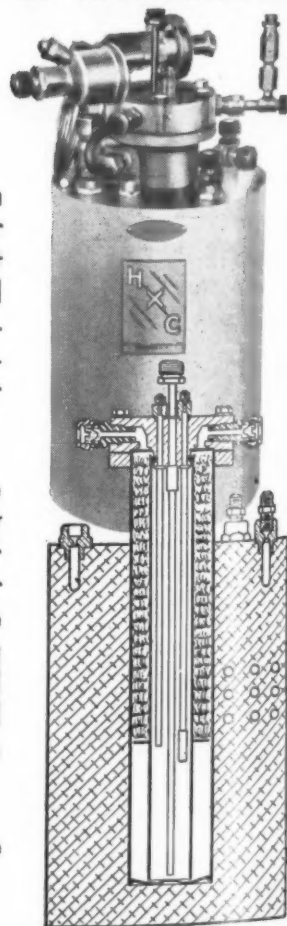
COOLER CARBONATOR

SELF-CONTAINED FOR A VARIETY OF APPLICATIONS

● The famous Heat-X-Cast Aluminum Cooler now incorporates a carbonator... and like all other Heat-X equipment... is compact, simple, efficient and rugged. Result: a unit with many advantages for soda fountains, counter dispensers, vending machines and other applications.

HOW IT WORKS: Water entering the casting is cooled and then alternately with CO₂ gas enters the mixing chamber in the lucite carbonator head. Water and gas pass through atomizing orifice holes, and stainless steel wool permitting absorption of the gas. The carbonated water level in the bottom of the shell controls the water pump through a floatless relay.

Compact pump, motor and relay in one small unit.



THE HEAT-X-CHANGER CO., INC.
415 Lexington Avenue, New York 17, N.Y. Brewster, N.Y.

Preview

Kinetic Personnel To Answer 'Freon' Questions

If you have any questions on the "Freon" situation or on the uses of "Freon" refrigerants, personnel from Kinetic Chemicals, Inc., will be in space 216 to answer them.

You will be able to fire your queries at R. J. Thompson, sales manager; R. L. Williams, assistant sales manager; Frank Featherer, of the plant laboratory; J. B. Gillie, advertising representative; and other members of the sales and advertising staffs.

Although the firm will have a display, no details concerning it were announced.

In reporting on its exposition plans, Kinetic said installation of equipment is moving ahead on schedule at the East Chicago (Ind.) plant.

"This plant is scheduled for operation in the spring of 1948," the company stated. "With this added production there is expected to be sufficient 'Freon' to meet requirements for next summer."

Cleveland Refrigerator To Show Broad Line

Exposition visitors stopping at The Cleveland Refrigerator Co. display in booth 915 will see a sectional steel walk-in cooler, a ¾-vision delicatessen case, a 45-cu. ft. reach-in, a dry beverage cooler, and salad units.

The Miracool walk-in to be exhibited is 8 ft. 6 in. high and has two service windows and a white exterior with black trim. The galvanized-lined interior is equipped with all meat fittings, including quarter rails, shelves, and meat hooks. While the size is 8 ft. x 6 ft., the cooler can be enlarged or rearranged with additional sections.

Exterior and interior of the Miracool delicatessen case are porcelain clad. Among features are fluorescent lights, "Thermopane" glass, and drop-type scale and wrapping boards.

Points about the reach-in to be stressed include sliding glazed doors, white baked enamel interior and exterior finish, bottom storage doors in black enamel with automatic lights, display with fluorescent lights, and a ceiling-mounted blower coil.

The all stainless steel clad National dry beverage cooler being shown is also available with a black morocco body and all stainless steel top and doors. Produced in four sizes, the cooler is equipped with full length fin coils, G-E blower fans, and an extra utility shelf.

National salad units have a stainless steel front, top, roll cover, pans, and lining; a laminated cutting board; toaster space with a plug-in outlet; and chrome hardware.

William Drosd, president, and Charles Demetry, Edw. Smith, and Sam Litt will represent the company.

La Crosse Spotlights New Ice Cube Maker

Center of attraction in La Crosse Cooler Co.'s exhibit will be the new 16-tray self-contained ice cube maker with storage compartment which has just been placed on the market as a companion piece to the La Crosse dry storage bottle cooler.

This manufacturer of beverage cooling and dispensing equipment will also have on display in space 1110 its two-tap direct draw beer dispenser, 6-ft. electric dry bottle cooler, Economy combination electric keg and bottle cooler, and 6-ft. Supreme stainless steel drainboard and cocktail unit.

The display will be under the supervision of W. W. Newberry, sales manager, who will be assisted by L. C. Van Dervort, H. A. Phillips, and W. Bertelson (chief engineer.)

Eston To Emphasize Cylinder Markings

Eston Chemicals, Inc., of Los Angeles, will draw attention to its full display of Eston methyl chloride and sulfur dioxide cylinders, emphasizing the distinctive markings used, by what it calls "a unique animation of the company trade-mark."

This exhibit is to be set up in booth 224 where "plenty of seating capacity will be provided for weary visitors," according to W. E. Horn, who will be on hand along with G. S. Wheaton.

The company plans to hold informal meetings with various area representatives.



**THE ONLY COMBINATION
FOOD AND BEVERAGE
COOLER THAT CAN BE
OPERATED WET OR DRY**

THE NEW ARTKRAFT BEV-FOOD

**AT ONLY \$385 RETAIL (f.o.b. factory) IT OFFERS THE LOWEST COST
PER CUBIC FOOT USABLE REFRIGERATION SPACE IN THIS SIZE RANGE**

**A high quality, self-contained 'plug-in' unit.
Each compartment can be used entirely for dry refrigeration.
Top opening prevents spill-out of cold.**

IDEAL FOR:

RESTAURANTS
ROADSIDE STANDS
DAIRY STORES
HOTELS
TAVERNS
FISH MARKETS
FACTORY
CAFETERIAS
HOSPITALS
SODA FOUNTAINS
BOWLING ALLEYS
MEAT MARKETS
DELICATESSENS
CANDY STORES
DRUG STORES

SPECIFICATIONS:

Sealed cabinet: 65½" x 38" x 29½".
Solid 3" insulation—Vermin-proof.
Top compartment: 35¾" high x 20¾" wide x 15½" deep. (Slightly over 6½ cu. ft.)
Food compartment: 21¼" wide x 28¾" high x 20¾" deep. Slightly over 7½ cu. ft.)
Total storage capacity: 14 cu. ft.
Finish: Exterior—Silver blue.
Interior—Porcelain enamel.
Top and 2 sliding covers, stainless steel.
Condensing Unit: ¼ H.P., twin-cylinder air cooled. Equipped with Tecumseh, Universal Cooler, or Copeland unit.
Motor: ¼ H.P., 60 cycle, single phase, 1750 r.p.m., 110 volts, capacitor type.
Refrigerant: F-12 Freon.
Automatic light in food compartment.
8-point cold control.

DEALERS:

Ask your distributor for this great profit-maker—or write us for his name. Distributed in many areas by G.E. Supply Corp.

DISTRIBUTORS:

Write for details of franchise for open territory.

The

Artkraft Manufacturing Corp.

Quality Products for more than a Quarter of a Century

200 KIBBY ST., LIMA, OHIO, U.S.A.

THIS COUPON FOR YOUR CONVENIENCE

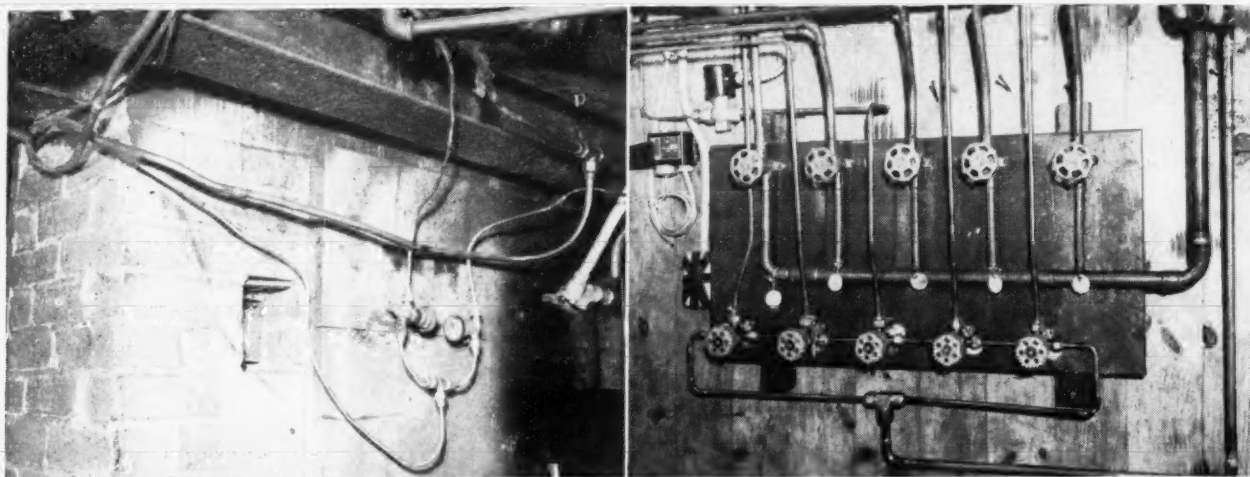
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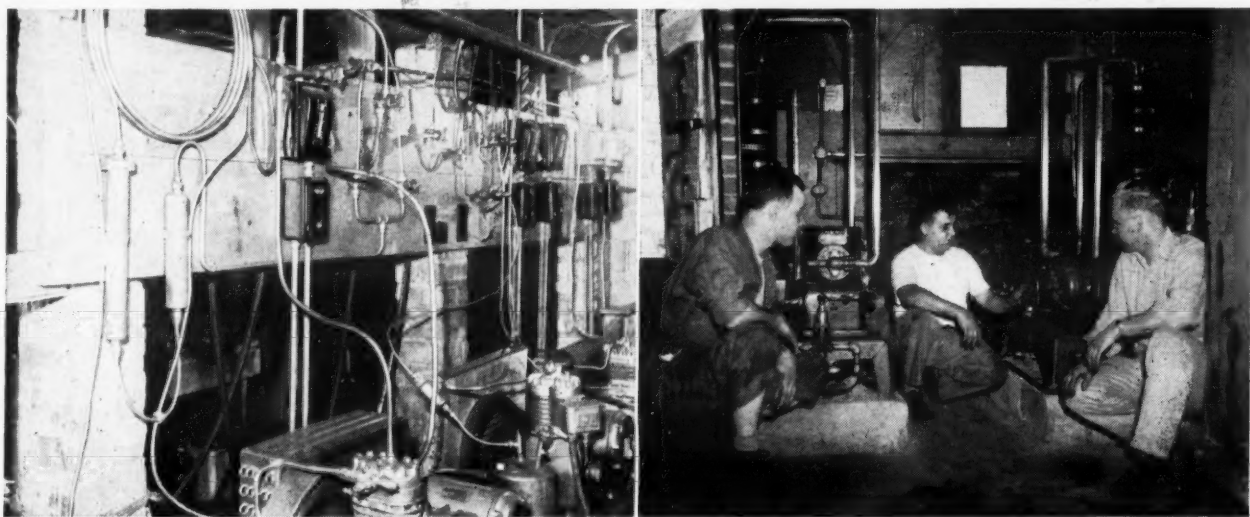
NAME.....

FIRM.....

CITY.....



BEFORE recent changes at the Youngstown tavern, refrigerant lines ran every which way, in elevator shafts, taped to pipes, or merely hanging loose as shown at left. These could be easily damaged allowing refrigerant to escape, and nearby were several open flames. But observe the neat control panel at the right AFTER the new installation. All the joints here are silver-soldered.

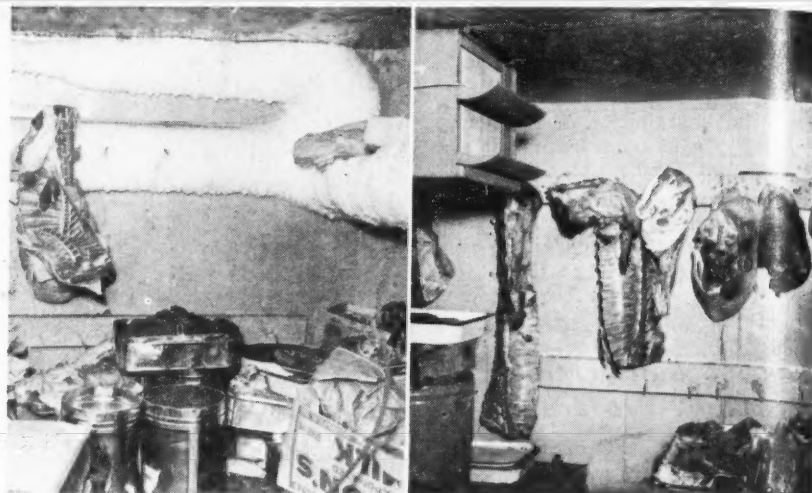


The maze of tubing at left could hardly be called attractive or safe, and moreover four condensing units were employed. Compressors and motors had even been welded to the bases, making belt adjustments impossible. The new installation at right substitutes two machines for four in an out-of-the-way corner.

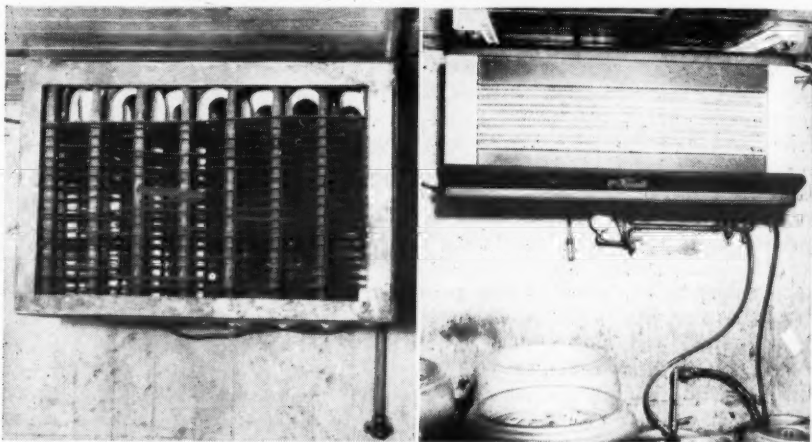
Neat, Efficient & Safe Installation Is Major Aim of NARC for Contractors

One of the major aims of the National Association of Refrigeration Contractors is that its members and contractors generally should make their installations efficient, safe, neat, and attractive. An attractive installation with perfectly straight runs of tubing, a well designed control panel, and the like is very impressive and reflects most favorably on the contractor and the industry generally, believes NARC.

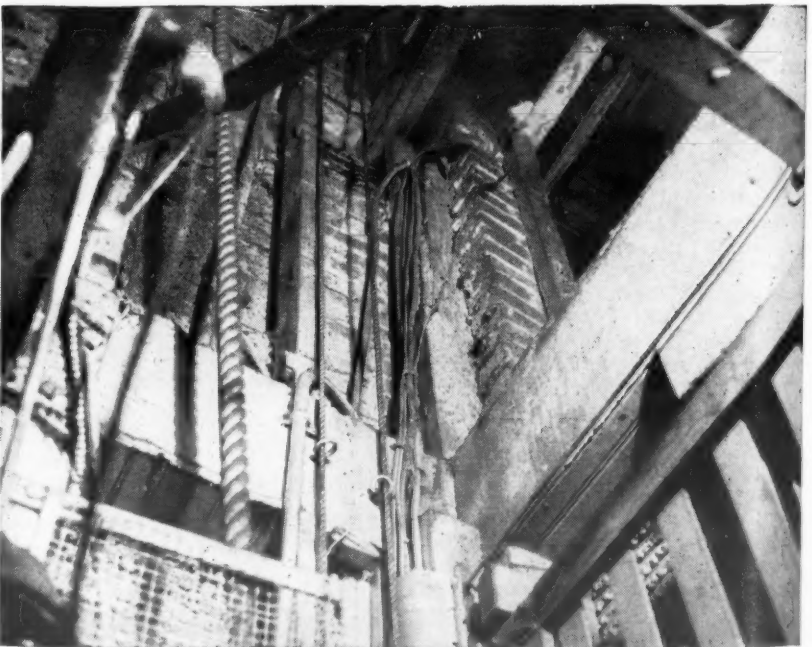
To show what can be done, here are some before-and-after photos taken at Moore's, a Youngstown, Ohio, tavern said to be the nation's third largest dispenser of beer. Refrigeration Contractors, Inc., an NARC member, completely revamped the refrigeration installation in this tavern.



Frost was so thick on the bare pipe coils in the small walk-in cooler at left that the meat hooks couldn't be used, and refrigeration was poor. Installation of a blower unit as shown at right solved these problems and greatly improved sanitation.



The "home-made" coil (left) in the beer keg cooler room was in such a state as to be neither efficient nor safe. Compare its appearance with the modern coil (right) which was installed recently.



Another part of the refrigeration installation at the Youngstown tavern that would keep safety inspectors awake nights were these poorly installed refrigerant lines in a freight elevator shaft. This has been corrected.



SOFT, EASY-BENDING REVERE REFRIGERATION TUBES

REVERE DRYSEAL COPPER REFRIGERATION TUBE is made of deoxidized copper (99.9+ % pure) and is kept oxide-free by special processing methods. It is suitable for use with the following refrigerants: sulfur dioxide, methyl chloride, Freon 11, Freon 12, Freon 22, Freon 114. It is not generally recommended for use with ammonia. It is dead soft, easy to bend and will not split when flared at the ends. May be used with solder- or compression-type fittings.

REVERE 35-O ALUMINUM REFRIGERATION TUBE contains 98.8% aluminum and 1.2% manganese. It is suitable for use with the following refrigerants: sulfur dioxide, ammonia with up to 5% water, Freon 12, Freon 114 and methyl formate. Not recommended for use with Freon 11, Freon 21, Freon 113 and methyl chloride. It is equal to Revere Dryseal Copper Tube in ease of bending and flaring operations. Aluminum fittings are preferred, although galvanized steel will assure good service. In the case of lines using Freon 12, it is permissible to use copper or brass fittings if the external surfaces of the fitting and adjacent tube are covered with a good primer or waterproof grease.

OTHER DATA

Surfaces	Exterior and interior surfaces are clean, smooth and free from slivers, seams, grooves, cracks and other injurious defects.
Dryness	Each length is carefully dehydrated and immediately sealed at both ends.
Sizes	From 1/8" to 3/4" O.D., with .035" wall, and standard in 50-foot coils.

	Revere Dryseal Copper	Revere 35-O Aluminum
Tensile Strength, psi	32,000	16,000
Elongation, % in 2 in.	45	30
Density, lbs. per cu. in.	0.323	0.099

Conditions of exposure and other factors are often important in determining the proper material to be used. Revere's Technical Advisory Service is available to aid in this selection.

Revere Dryseal Copper Refrigeration Tube and Revere 35-O Aluminum Refrigeration Tube are available from leading distributors throughout the country.

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NARC Second Convention Will Mark Progress Toward the '21 Objectives'

CLEVELAND — When President Warren W. Farr raps the gavel to start proceedings at the annual meeting of the National Association of Refrigeration Contractors during the Fifth All-Industry Exposition next month, he will be opening only the second such gathering of the group.

A glance at the association's status today, compared with that when it was resolved into being, will show just how fast the group has come along.

There were 29 persons from 14 states on hand when, on Dec. 10, 1945, a meeting was held in Chicago's Palmer House to talk about a national organization of refrigeration contractors. (NARC was formally organized Jan. 22, 1946, in the Carter hotel in Cleveland.)

Here is how things stand as NARC awaits this second annual meeting:

NARC now has representation in 43 states and Canada.

It embraces 23 affiliates, a number of which are state associations.

Members are located in virtually every principal city in the United States.

But rapid growth is not the only thing the association is proud of. During the past year, for example, "much has been accomplished in the fields of trade relations, trade practices, ethics, codes, licensing, and labor relations," an NARC spokesman declares.

"Members are benefited," NARC says, "by special reports from association headquarters, semi-monthly news letters with up-to-the-minute developments in the field, and full participation in the association program designed to raise the standing and prestige of every qualified refrigeration contractor in the country."

NARC defines a refrigeration contractor as "any individual, partnership, or corporation engaged principally in the business of selling, erecting, installing, altering, repairing, servicing, or maintaining refrigeration equipment, who shall have an established location where he transacts his business with the public with a sign displayed announcing the character of his business and shall carry stock of refrigeration materials for the performance of refrigeration installation or work and shall maintain proper books of accounts and records incident to the conduct of his business."

The association is guided by 21 objectives. These objectives, NARC points out, are aimed at:

1. Promoting the welfare of its members by distributing information, statistics, and engineering data;
2. Promoting more friendly relations within the industry and between employers and employees;
3. To foster better business practices and to cooperate with municipal, state, and federal governments in matters of public interest; and
4. To protect the consuming public

by providing the best refrigeration installations possible to safeguard life, health, and property.

"All program activities are purely those of carrying out the 21 objectives and are aimed at putting more dollars in contractors' pockets through profitable business practices," NARC explains. "Statistics early in the year indicated that members in this branch of the industry represented a potential buying power of \$160,000,000 per year."

In addition to Farr, NARC's first president, other association officers are E. S. Wright, first vice president; J. F. Park, second vice president;

A. M. Palen, treasurer; Nathan Edelstein, recording secretary. L. C. Anderson will act as sergeant-at-arms.

J. J. Helminak is executive vice president. He was recently appointed to replace Gerald W. Weston.

The annual meeting in Cleveland is actually a continuation of a meeting held in Chicago last month, which was adjourned to January. The Chicago meeting was held because NARC's by-laws require an annual session every year (the first annual meeting was staged during the Fourth All-Industry Exposition last year).

National Association of Refrigeration Contractors

(NARC Official Exposition Headquarters: Allerton Hotel)

Sunday, Jan. 25

9:00 a.m.—Registration (continuing all day).

Evening—Meetings of the board of directors and committees.

Monday, Jan. 26

9:30 a.m.—Annual meeting, president's report, and speakers (to be announced later).

12:30 p.m.—Press luncheon meeting for members, wives, guests, and friends.

Tuesday, Jan. 27

9:30 a.m.—Annual meeting, with speakers, committee reports, and election of directors.

Evening—Meeting of the board of directors.



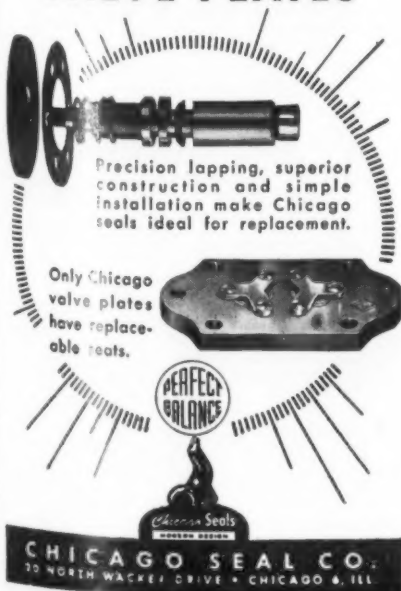
from PEERLESS to all our friends in the Refrigeration and Air Conditioning Industries

● Our sincere good wishes to all of you for a Joyous Christmas and a New Year of Health, Happiness and Prosperity. May 1948 see the realization of all our plans for producing and distributing, on the largest possible scale, new and improved equipment to bring comfort and better living to millions. Let's talk it over at the Fifth All-Industry Refrigeration and Air Conditioning Exposition January 26 to 29 in Cleveland. We invite you to the Peerless Exhibit to see new products we are confident you will pronounce in the Peerless tradition of leadership.

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AT THE 5TH ALL-INDUSTRY
REFRIGERATION AND AIR-CONDITIONING

EXPOSITION

CLEVELAND PUBLIC AUDITORIUM, CLEVELAND, OHIO, JANUARY 26-29, 1948

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Pattern of Commercial Refrigeration Sales Is Revealed In Chicago Survey

Sizes, Makes, No. Of Contractors Are Shown In Data

CHICAGO—During the first eight months of 1947, a total of 3,018 remote installations of commercial refrigeration equipment have been made in the city of Chicago, according to figures released by Gerald Gearon, supervising mechanical engineer of the Boiler and Refrigeration Inspection Department of the City of Chicago.

In 1946 there were 4,058 such installations, nearly double the 2,177 remote installations made in 1940, it was revealed.

Other figures released by Gearon show that approximately 30 makes of condensing units are involved in the 1946-47 installations, while the 1940 data shows that nearly 40 different makes of machines were installed.

A special check of the first four months of 1947 also shows that 152 contractors installed the 1,268 remote commercial jobs that went in during that period.

A breakdown of the figures according to the size of the installations in horsepower indicates that for all three periods involved (1940, 1946, and first eight months, 1947) the

(Continued on next page)

On this and the following three pages the News presents what it believes to be first comprehensive statistical data on actual commercial refrigeration installations in a specific area ever published. The place is Chicago, and the information covers installations of remote commercial machines for three years—1940, 1946, and the first eight months of 1947. The data was made available by Gerald Gearon, supervising mechanical engineer of Chicago's Boiler and Refrigeration Inspection Dept.

The tables directly below, for example, show these installations by size and by month for the three years. On page 23 tables show how various makes of machines compare in number of installations; how many machines of each size were installed, and a spot survey of a selected Chicago area which reveals where the machines went. A graphic representation of installations by months for 1946 and 1947 appears on page 24, while a table and a chart on page 24 show how many contractors installed how many machines in the first four months of 1947.

1940 Remote Commercial Installations by Size by Month

Month	1/3 hp.	1/2	3/4	1	1 1/2	2	3	5	Not Given	Total
January	5	44	19	26	13	6	7	2	4	126
February	8	37	17	32	11	7	3	7	1	123
March	6	45	29	41	12	..	5	2	..	140
April	6	99	54	51	18	10	5	8	1	252
May	6	62	..	90	74	16	2	12	..	262
June	4	65	37	52	43	..	..	18	..	219
July	5	74	56	58	24	..	1	5	1	224
August	8	62	41	47	31	1	3	7	..	200
September	48	38	55	8	4	..	..	..	1	154
October	..	71	38	53	17	19	5	6	..	209
November	3	50	23	25	11	7	2	3	1	125
December	16	50	34	34	5	..	3	1	..	143
Total	115	697	403	517	263	66	36	71	9	2,177

1946 Remote Commercial Installations by Size by Month

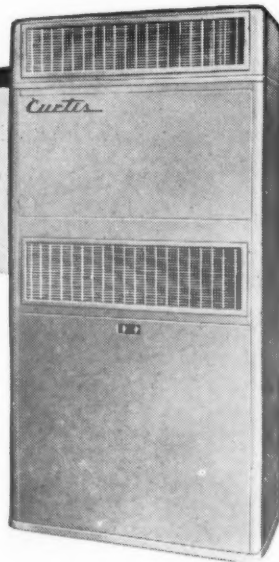
Month	1/3 hp.	1/2	3/4	1	1 1/2	2	3	5	Over 5	Total for Month
January	41	75	59	40	14	7	6	8	12	262
February	21	90	43	57	14	7	2	0	3	237
March	29	76	42	60	28	20	7	4	13	279
April	39	82	52	83	31	19	6	3	3	318
May	31	119	78	83	36	32	9	5	2	395
June	37	93	36	95	33	35	7	1	4	341
July	21	60	26	72	22	23	9	5	7	245
August	52	122	100	99	21	28	7	5	6	440
September	32	82	72	74	21	24	3	2	7	317
October	45	132	95	66	21	22	6	4	6	397
November	29	111	93	72	31	25	11	8	2	382
December	46	163	108	62	24	26	7	2	7	445
Total	423	1,205	804	863	296	268	80	47	72	4,058

1947 Remote Commercial Installations by Size by Month

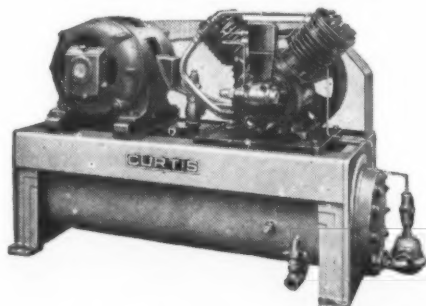
Month	1/3 hp.	1/2	3/4	1	1 1/2	2	3	5	Over 5	Total for Month
January	13	58	39	33	9	7	4	2	1	166
February	11	58	47	70	20	15	7	3	3	234
March	36	136	110	124	34	30	19	7	15	511
April	32	132	106	51	22	22	6	2	3	376
May	38	154	99	73	13	19	14	8	7	425
June	35	160	117	71	27	25	9	5	4	453
July	30	165	150	65	31	24	7	7	14	493
August	28	127	70	60	16	30	16	3	10	360
Total	223	990	738	547	172	172	82	37	57	3,018

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Number of Remote Commercial Installations by Make In City Of Chicago for 1940, 1946, And First 8 Months, 1947

Make	1940*	1946	Jan.-Aug. 1947
A	368	865	691
B	48	292	373
C	442	420	304
D	157	367	261
E	100	275	206
F	67	197	173
G	211	133	116
H	41	181	101
I	23	183	87
J	5	21	83
K	34	134	77
L	109	152	75
M	73	155	73
N	47	33	66
O	73	157	53
P	45	94	47
Q	7	104	32
R	42	42	32
S	7	27	29
T	15	47	16
U	64	17	12
V	17	20	11
W	6	16	8
X	0	1	6
Y	4	10	4
Others	163	115	82
Total	2,168	4,058	3,018

*Does not include machines of 10 hp. and over.

Number of Remote Commercial Installations by Size In City of Chicago for 1940, 1946, and First 8 Months of 1947

Size By Hp.	1940	1946	Jan.-Aug. 1947
1/4	115	423	223
1/2	697	1,205	990
3/4	403	804	738
1	517	863	547
1 1/2	263	206	172
2	66	268	172
3	36	80	82
5	71	47	37
Over 5	...	72*	57†
Not given	9	...	...
Total	2,177	4,058	3,018

*Includes nine 7 1/2-hp. machines; 20 10-hp.; 13 15-hp.; eight 20-hp.; seven 25-hp.; three 30-hp.; two 50-hp., and one each of 60, 75, 150, and 250-hp.

†Includes nine 7 1/2-hp. machines; 17 10-hp.; five 15-hp.; four 20-hp.; four 25-hp.; two 30-hp.; one each of 35, 40, 50, 60, and 75-hp.; three 100-hp.; one each of 115, 125, 150, 166, 175, and 300-hp.; and two 190-hp. machines.

1946 Remote Commercial Installations Nearly Double 1940 Sales In Chicago

(Continued from preceding page)
1/2-hp. machine was the most popular. In 1946, for example, this size ran almost 50% ahead of the nearest competitor with 1,205 installations against 863 for the 1-hp. machine.

Thus far in 1947, however, the 1/2-hp. unit remote installations total 990, compared with 738 for 3/4-hp. units. The 1-hp. machine totaled 547 units in the same period.

Installations of remote equipment, when tabulated by make, range from a high of 691 to a low of four during the 1947 period. This tabulation, which identifies the make of condensing unit by the letters "A," "B," etc. based on their relative standings in 1947 installations, provides an in-

teresting indication of how some makes have maintained a steady sale while others have fluctuated more or less widely.

Complete data on just what type of fixtures were involved and the type of store in which they were installed is not available, but a sampling of a small area in Chicago gives a breakdown of 63 installations in the month of May, 1947.

Here it is shown that of the 63 fixtures which were installed in 51 stores, 50 were new installations and 13 were replacements. Walk-ins and display cases were the leading items, and the largest buyers were grocery stores and taverns. Nine types of stores, however, are represented in

survey of this particular district.

As for the number of contractors who are active in the Chicago area, a breakdown for the first four months of 1947 shows that 152 made installations in that period. These ranged all the way from one contractor who installed 96 remote commercial machines in four months to the 51 firms who installed one machine each.

The average number of installations per contractors for the four months was 8.3 machines. Thus 116 contractors installed less than the average while 36 contractors were above the average in number of installations.

Another analysis of the figures shows in both tabular and graphic form how the remote installations of commercial machines varied by months for the periods in question. In 1940, for example, the high month

(Concluded on next page)

Survey of Remote Commercial Installations In May, 1947, In Selected Chicago Area

Type of Store	14	Type of Fixture	19*
Grocery	14	Walk-in	19*
Tavern	9	Display case	13
Bakery	6	Ice cream	9
Meats	6	Reach-in	6
Confectionery	5	Frozen food	5
Restaurant	4	Dough	5
		retarding	5
Florist	3	Florist	2
Liquor	2	Soda fountain	2
Drugs	2	Bever. coolers	2
Total	51	Total	63

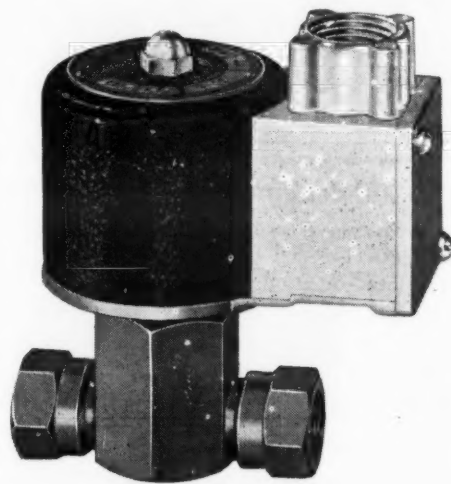
*Includes four draft-beer cooling jobs.

This survey does not include self-contained equipment. Of the 63 fixtures installed in this area 50 represented new installations, the remaining 13 being replacement of existing equipment.



2 Tons Freon

Brass body, renewable soft Neoprene seat. Come-apart construction with rotatable coil and aluminum junction box. 3/8" F.P.T. connection.



SV 11

1 Ton Freon

Brass body, mounted in standard electrical outlet box. Easily installed. 3/8" F.P.T. connections.

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SV 31 and SV 51

3 Tons and 5 Tons Freon

Brass body, come-apart construction with rotatable coil housing. Two piece impact plunger with direct acting metal-to-metal seat on SV 31. Neoprene seat on SV 51. Manual operating stem. 3/8" and 1/2" F.P.T. or solder connections.



SV 101 and SV 201

10 Tons and 20 Tons Freon

Brass body with flanged come-apart construction. Pilot-piston operated. Connections 3/4" F.P.T. or 7/8" O.D. solder.



SV 22

10 Tons Ammonia

Steel body with come-apart construction and hardened steel renewable seat. Aluminum junction box. Manual operating stem. 3/8" and 1/2" F.P.T. flanged connections.

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High suction pressure water coolers ideal for bakery ingredient water and jacket cooling, film processing, bottling plants, etc. Variable ranges of sizes. Low suction pressure for remote installations and cabinet type coolers also available.

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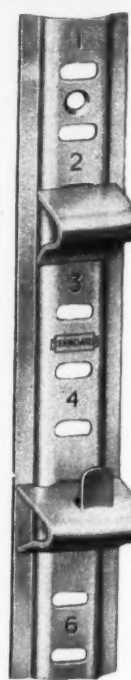
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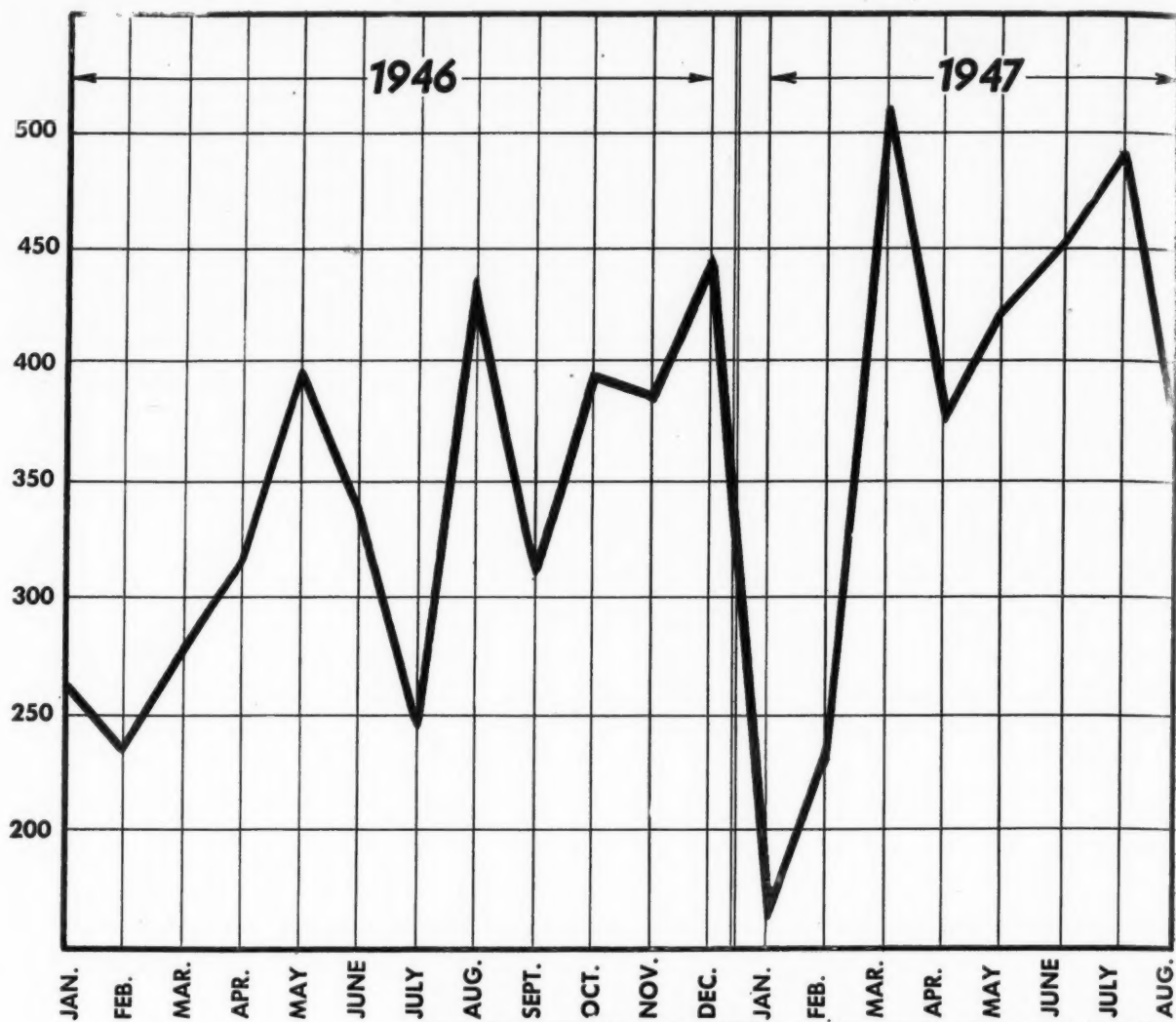


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Record of 20 Months Chicago Commercial Sales



Above is a graphic representation of the remote commercial installations made in Chicago during the 20-month period from January of 1946 through August of 1947. It is problematic perhaps whether these monthly figures will serve as a true pattern for a normal period because of the unusual conditions of supply which have characterized the postwar era.

**Survey of Chicago Commercial Sales
May Indicate Some Seasonal Trends**

(Concluded from preceding page)

In 1946 December was the top month with 445 with August (440) close behind. March was the best of the first eight months of 1947 with 511 installations. July was a close second, however, with 493 jobs.

The lowest month in the 1946-47 period—January, 1947, with 166 installations—was considerably ahead of the 1940 low of 123 made in

February; in fact, the January, 1947, low exceeded installations in six of the months of 1940; January, February, March, September, November, and December.

Any conclusions as to the seasonal variations of commercial sales as indicated by the monthly figures for 1946 and 1947 should probably allow for the unusual conditions of supply which have characterized the postwar period.

BECAUSE . . .

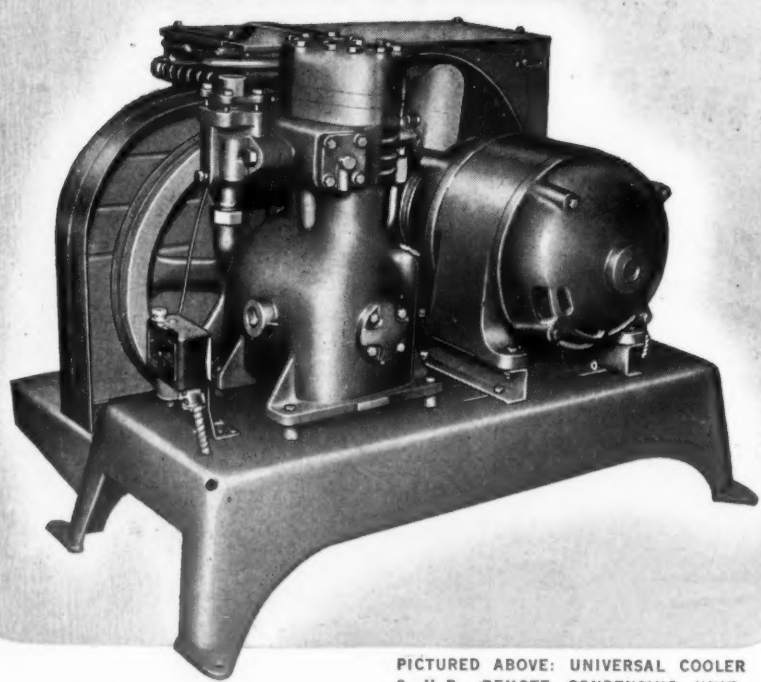
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PICTURED ABOVE: UNIVERSAL COOLER
3 H.P. REMOTE CONDENSING UNIT.

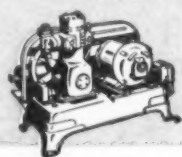
**1/4 TO 15 H. P. REMOTE CONDENSING UNITS
FOR COMMERCIAL APPLICATIONS**

The unit illustrated is designed especially for heavy duty service in commercial refrigeration applications. Precision-built parts are carefully assembled, the unit is dehydrated, thoroughly run in and tested under actual operating conditions. Tell us about your refrigeration problems—let our sales engineers show you how Universal Cooler can solve them.

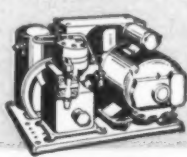
HERMETICS



REMOTES



SELF-CONTAINED



UNIVERSAL COOLER

DIVISION INTERNATIONAL DETROLA CORPORATION

MARION, OHIO • BRANTFORD, ONTARIO

★ **PUFFER-HUBBARD** MFG. COMPANY
GRAND HAVEN MICHIGAN

**To Preserve it "PH" - it
with a REACH-IN Cabinet**



PUFFER-HUBBARD
ANOTHER CASE OF GOOD REFRIGERATION ENGINEERING

- ✓ Electric Welded Steel Frame
- ✓ Welded Interior Porcelain Lining
- ✓ Porcelain Exterior
- ✓ Exclusive Grad-u-matic Air Conditioning feature

Also Manufacture
Dough Retarding Cabinets
Self Serve Veg-Cases
Dry Beverage Coolers
Self Serve Dairy Cases
Write for
information

All these plus

All these features and many other refinements are combined into every Puffer-Hubbard cabinet to make it today's best buy. Solid door or glass door models with Thermopane Triple Glass. Also available, icemaker units.

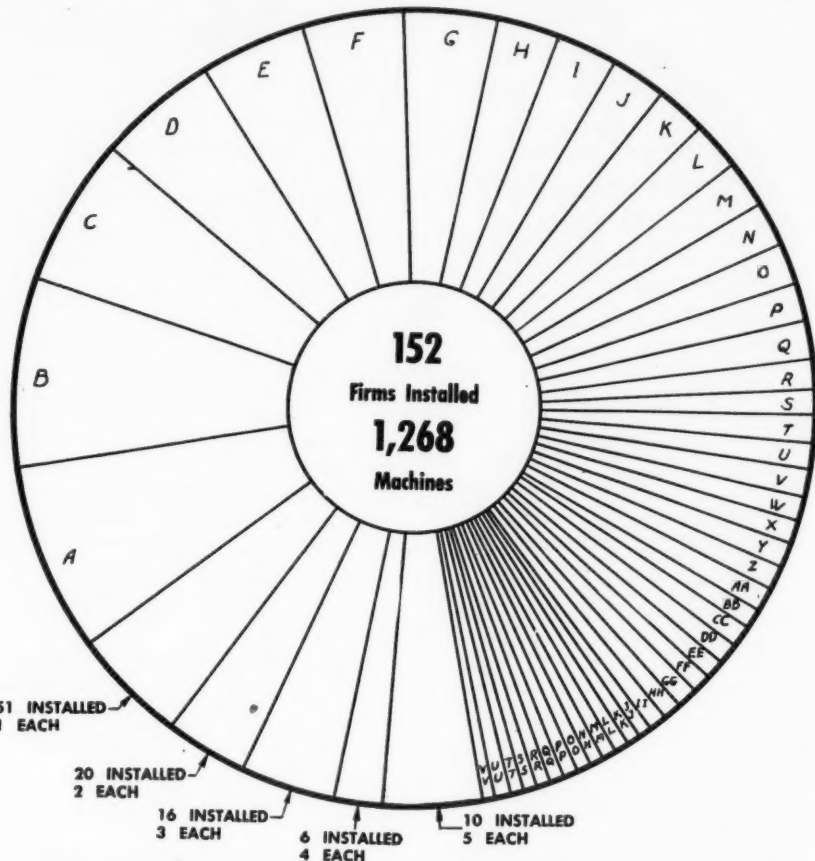
PUFFER-HUBBARD MFG. CO.

★ *The Mark of a Good Case*
GRAND HAVEN, MICHIGAN, EST. 1898

Number of Contractors Who Installed Remote Commercial Machines in City of Chicago in First 4 Months of 1947

Contractor	No. Machines Installed	Percentage
A	96	7.6
B	94	7.4
C	75	6.0
D	62	4.9
E	53	4.2
F	52	4.1
G	49	3.8
H	33	2.6
I	33	2.6
J	28	2.2
K	27	2.1
L	24	1.9
M	24	1.9
N	23	1.8
O	22	1.7
P	20	1.6
Q	19	1.5
R	17	1.3
S	16	1.2
T	16	1.2
U	14	1.1
V	14	1.1
W	13	1.0
X	13	1.0
Y	13	1.0
Z	13	1.0
AA	12	1.0
BB	11	0.9
CC	11	0.9
DD	11	0.9
EE	11	0.9
FF	10	0.8
GG	10	0.8
HH	9	0.7
II	9	0.7
JJ	8	0.6
KK	8	0.6
LL	8	0.6
MM	8	0.6
NN	8	0.6
OO	8	0.6
PP	7	0.5
QQ	7	0.5
RR	6	0.5
SS	6	0.5
TT	6	0.5
UU	6	0.5
VV	6	0.5
10 firms installed 5 ea.	50	4.0
6 firms installed 4 ea.	24	2.0
16 firms installed 3 ea.	48	3.8
20 firms installed 2 ea.	40	3.2
51 firms installed 1 ea.	51	4.0
152	1,268	100.0

How Firms Shared In Commercial 'Pie'



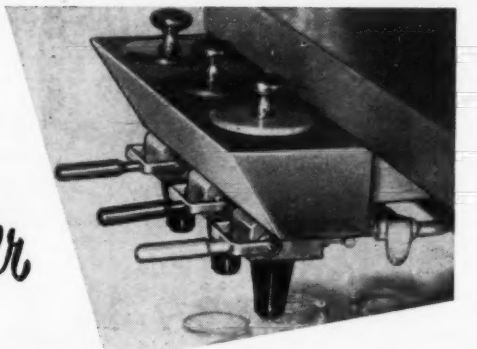
This pie chart covering remote commercial installations in Chicago during the first four months of 1947 shows how many firms were involved in the 1,268 machines installed during that period. No one firm nor group of firms comes close to monopolizing the business, it is obvious. However, 12 firms installed approximately half the machines. It is also interesting to note that 103 of the 152 firms handled five or less machines each in the period.

Markley Takes Post with Dairy Equipment Co.

MADISON, Wis.—Appointment of Richard Markley, Jr., of Liberty, N. Y., as consulting engineer and factory representative for the Dairy Equipment Co., of Madison, has been announced here by G. F. Albrecht, president of the company. The Dairy Equipment Co. is the Wisconsin, Minnesota, and Iowa distributor for Wilson freezers, milk coolers and other Wilson products. Markley, formerly chief engineer designed the Wilson "Zero-Flow" milk cooler.

THE NEW

MULTI-FLOW Soda Dispenser



- DELIVERS A FINISHED, MIXED CHASER
- SAVES TIME — MONEY — SPACE

This amazing MULTI-FLOW Soda Dispenser combines every new feature, eliminates all the old disadvantages! It dispenses "chasers"—ginger ale, lemon-up, cola, or sparkling seltzer, with a flip of the handle. Eliminates handling bottled-drinks and empties, saves valuable space because there are no large syrup storage tanks.

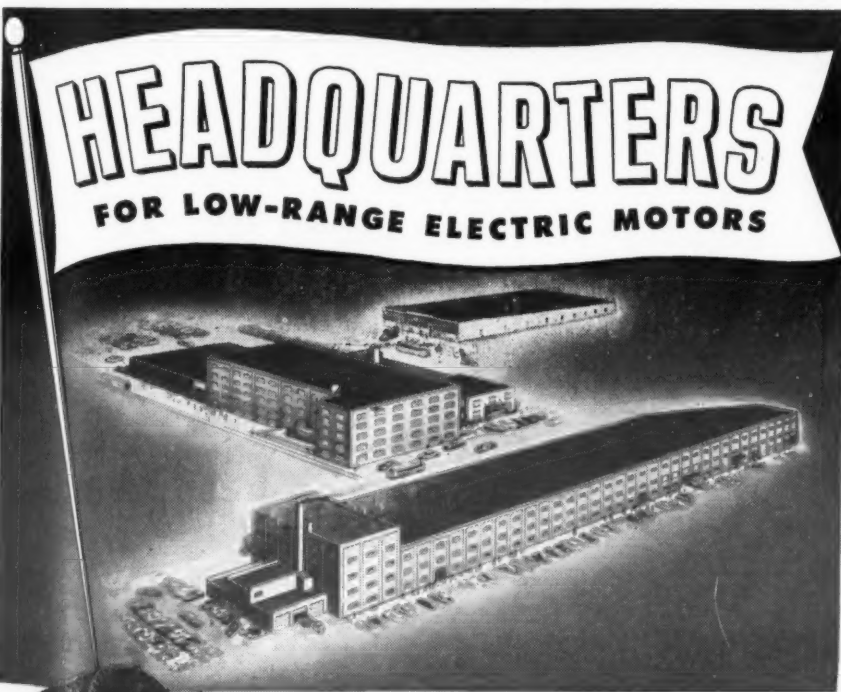
HERE ARE SOME OF THE BIG FEATURES OF THE NEW MULTI-FLOW:

1. Fits under any bar.
2. All 18-8 stainless steel construction.
3. Simple, easy one-half hour installation.
4. Eliminates pressure lines and valve adjustments.
5. Freedom from service difficulties.
6. Ready for use at ALL times.

Available in Single, Double and Triple Installations Write, Wire or Phone for Complete Details and Low Cost

MULTI-FLOW DISTRIBUTORS

1921 FAIRMOUNT AVE., PHILA. 30, PA. • Phone: PO 5-2257



Redmond

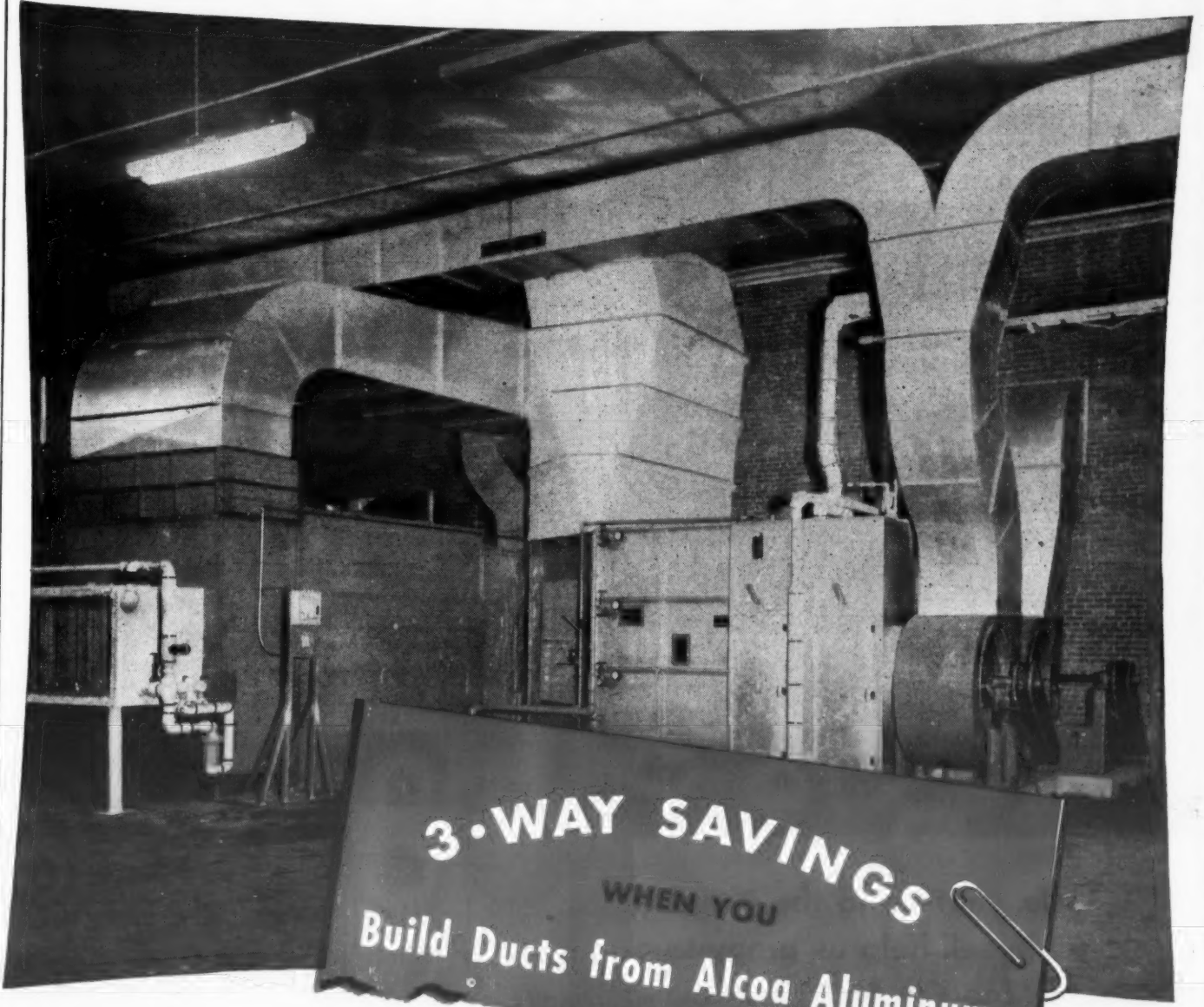
...Builder of more than 20,000,000 MicroMotors

HERE is an organization of specialists who concentrate every effort on small electric motors and their application. Here the customer can discuss engineering details confidentially, knowing he is dealing with a motor manufacturer that does not build consumer products in competition with his own. When you need advice, contact Redmond. When you need dependable low-range fractional motors, check on the famous Redmond Micromotors.

A.C. MICROMOTORS
4-pole shaded pole up to 1/15th hp.
SPEED CONTROLLERS • SMALL BLOWERS

D.C. MICROMOTORS
Continuous duty up to 1/20th hp.
Intermittent duty up to 1/10th hp.

Redmond COMPANY, INC., MAIN OFFICES: OWOSSO, MICH.
EASTERN AREA SALES: 420 Lexington Ave., New York 17, N. Y.
PACIFIC COAST SALES: Redmond Company of Calif., Inc., 117 W. 9th St., Los Angeles 15, Calif.



In the fabrication shop, you save money because the strong, lightweight sheets of Alcoa Aluminum are easy to fabricate, easy to assemble, easy to bend on your standard brakes and tools.

Length for length, Alcoa Aluminum Ducts weigh less than half as much as ducts of ordinary metal. It takes fewer men, requires less supporting structure and hangers to put up aluminum ducts.

Alcoa Aluminum Duct Systems cannot rust,

cannot produce condensates that will stain. Require no painting. Maintenance costs are less, and replacements are more infrequent than with ordinary ducts.

When you design or specify ducts, be sure to "Make Them of Alcoa Aluminum". It pays three ways. ALUMINUM COMPANY OF AMERICA, 1975 Gulf Building, Pittsburgh 19, Pennsylvania. Sales offices in 54 leading cities.

MORE PEOPLE WANT MORE ALUMINUM FOR MORE USES THAN EVER

ALCOA FIRST IN ALUMINUM



IN EVERY COMMERCIAL FORM

They'll Do It Every Time By Jimmy Hatlo



BOSS-O USUALLY IS ABOUT AS TALKATIVE AS A FROST-BITTEN CLAM. GRUNTS HE SPEAKS IN--



THANK TO MRS. KATH. A. NORMAN, SAVANNAH, GA.

AND UH-- IN MY UH-PEREGRINATIONS UH-I-ER-- NOTE THE ER-VERISIMILITUDE AND UH--AMBIDEXTROUSNESS OF YOUR TAUTOLOGICAL PERORATION-- NEVERTHELESS, AND UNIRREGARDLESS--

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VOLUME, 52, No. 16, SERIAL No. 978, DECEMBER 15, 1947

We Live In a Growing, Expanding Nation; Let's Support It!

THE MOST AMAZING feature of our postwar economy is the consistently bad guesses which America's economists continue to give out. Ever since V-J Day the crystal-ball gazers who advise both Big Government and Big Business have been so unanimously and so consistently wrong that they have upset the mathematical Laws of Averages and Probabilities.

Washington economists have predicted depression and unemployment regularly. "Big Steel" economists have predicted an oversupply of that basic commodity just as often. Both groups of double-domes have been equally wrong. Which collection of bad guessers have damaged us the most is a moot question.

It's a cinch we don't have enough steel . . . now, or in the foreseeable future.

And it's also true that we have little or no unemployment.

How come all these bright analysts and statisticians have missed the boat so often and so badly?

Well, one possible answer to that question is that they were confounded by the sharp rise in the marriage-and-birth-rate in the United States during the last half-dozen years. They were totally unprepared for this phenomenon.

America, like France, was supposed to be a nation of dwindling population. Stuart Chase, the home-grown economist who advised FDR (along with Britain's Harold Laski and other necromancers) had a great deal to say about our declining birth-rate and "vanishing frontiers." He and Laski provided the philosophical background for, and the underpinning of, the New Deal. Their theory:

Because America's resources and population are dwindling, present wealth must be divided.

But things didn't work out that way. Laski and Chase didn't foresee atomic energy (which can multiply our resources staggeringly). Nor did they foresee the upward zooming of our birth-rate.

In the last six years, more than 15 million additional citizens have swelled America's population. Before long, the United States will have at least 150,000,000 inhabitants. And that figure will continue to grow. A total of 200,000,000 American citizens is not impossible during the lifetime of many of us.

When Stuart Chase told us that we had become a "mature" nation, and that we were declining in age and powers, he set a pattern for following politico-economists. That pattern was false and foolish, and it has led too many market analysts, politicians, and business executives to base their premises upon wrong conclusions.

Because we have immensely greater numbers of people to feed and clothe and employ than any of our double-domed prognosticators have imagined would be present in this country—and in the world—American agriculture and industry must expand.

It's a New Era we're confronting now. Old statistical projections and market studies are obsolete.

To be sure, our productive capacity expanded greatly during World War II. But it still can't take care of America's needs and wants—not to mention the bottomless pit of shattered Eurasia.

What's more, population shifts from one area to another in the United States, income shifts from one classification to another, newly-acquired spending habits on the part of newly well-off folks and unprecedented export demands will all combine to tax America's total productivity and distribution ingenuity to the strain-point.

It's a different world we live in—and a bigger one.

Perhaps we need a new generation of economists who can envisage the meaning of this vastly Bigger Market.

And it's a cinch that we all—especially those of us in the refrigeration, air conditioning, and home appliance business—have a bigger job to do. Let's gear up our organizations to take care of it.

It's Time To SELL Again!

PHILCO FREEZERS



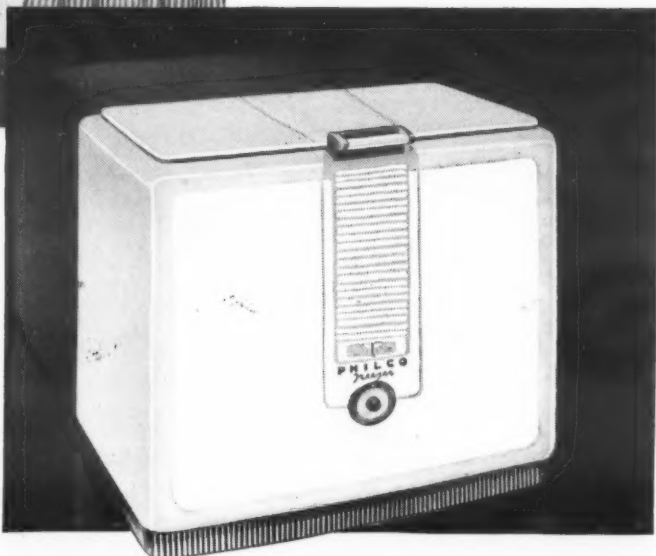
bring extra profits to
AMBLER
PENNSYLVANIA
LOCKER PLANT

"Profitable, yes!—and the Philco Freezers we sell help us promote the frozen food habit."

Many successful locker plants are getting a 3-way profit from the sale of Philco Freezers:

1. From the Freezers, themselves.
2. From increased sales of packaged frozen foods.
3. From new business in processing.

They find that Philco Freezers in the homes of their customers make frozen foods a daily, every-meal habit—encourage volume purchases of frozen foods—often result in rental of additional locker space. A Philco is just the right size for an average kitchen supply. It adds to the usefulness of the rental locker. Write today, for full information about this new plus profit opportunity to—Philco Corp., Philadelphia 34, Pa.



MODEL AH-51

5 cu. ft. capacity, the ideal "home" freezer. Supplements the rental locker. Provides facilities at home for the storage of day-to-day supplies of frozen foods that are withdrawn periodically from rental locker or purchased from locker plant.

NOTE THESE PHILCO FEATURES

- ★ Temperatures of 10° to 20° below zero.
- ★ Outside Thermometer shows interior temperature.
- ★ Locking Temperature Control. Stops tampering by unauthorized persons.
- ★ Hermetically Sealed Power Unit.
- ★ Guardian Bell rings to warn of current failure. Battery operated.
- ★ Available in 2½ and 5 cu. ft. sizes to fit your customers' needs.



FREEZER HAS PLACE IN SOLVING FOOD PROBLEM

Revco, Inc.
Deerfield, Mich.

Editor:

Just read your editorial, "Next Year We May Plant Victory Gardens Again"—and am inclined to believe that you may be right. You have indeed been a "voice in the wilderness" both as to your appraisal of the coming international debacle, as well as the need and soundness of home freezers and frozen foods. Your editorials in regard to the latter have been inspiring and our convictions have been buttressed by ordering reprints from you for our distributors.

Our own faith in the essential need of the home freezer has never lagged and is backed up by our latest sales manual, copy of which we are enclosing herewith.

We are "small potatoes" as far as big time manufacturing and merchandising is concerned, but this does not prevent us from putting out an honest product followed up with honest promotional effort to back up this item.

Yes, it may take some hard knocks to awaken the general public that "eating" is not just a luxury—that it is almost indispensable.

At any rate, accept our continued good wishes for the splendid pioneering you are doing for the frozen food industry at large, and the home freezer in particular.

G. F. FORSTHOEFEL

INFORMATION SOUGHT ON DUCT CLEANING METHODS

A. E. Dorr, Inc.
311 North Harvey
Oklahoma City

Editor:

We are seeking information on the subject of duct cleaning, both for grease and air ducts, etc. and have been referred to you by MacNair-Dorland Co. as a possible source of information.

If you have any information on this subject we will appreciate very much if you will advise us as so far our efforts in this direction have met with no success. It seems that this is a more or less specialized field of

the cleaning industry and those who are interested are very loath to part with it. We thought that you might have some information available and could give us the information or refer us to authoritative publications or articles on the subject.

We will appreciate a letter from you at an early date.

R. D. RUMSEY

Answer: The following articles in the NEWS this year have covered the subject of duct-cleaning:

"Filter 'Laundry' Is Cleaning Permanent Types for Re-Use at 30 Cents Apiece," Jan. 20 issue—page 20; "Solving The Duct-Cleaning Problem," Jan. 20 issue—page 21; "Cleaning Air Ducts Keeps New Firm Busy," April 14 issue—pages 22 & 23; and "Cost Plus System for Air Duct Cleaning Jobs Precludes Customer Price Complaints," Oct. 6 issue—page 8.

SALES FIGURES COVER 'GREATER MINNEAPOLIS'

Minneapolis Gas Light Co.
Minneapolis, Minn.

Editor:

In your Nov. 17, 1947 issue, page 2 top article, in column 3, headlined "Electric Waterheater Sales Rise in St. Paul, But Drop in Minneapolis," this article states that for the first nine months period of 1947 electric water-heater sales in Minneapolis totaled 512 and that electric range sales in Minneapolis totaled 1,556 for the same period. We understand that instead of reading that these sales were made in Minneapolis this should have read, "In the Minneapolis area" which would include all of the suburb area adjacent to Minneapolis other than St. Croix Falls and Minnetonka.

For your information the installation of new electric water heaters in Minneapolis proper for the first nine months of 1947 according to permits issued through the Minneapolis Court House were 90 new electric water-heaters and a total of 356 new electric ranges.

We feel that you may wish to correct this article to give a true picture of the facts as they may be obtained through the records of the Minneapolis Court House.

We are sure that your publication is interested in publishing conditions as they actually exist.

R. L. ROBERTSON, Manager
Dealer Department

ONE OF THE FINEST

Simons Distributing Co., Inc.
17 Lyman St.
Providence, R. I.

Editor:

Your editorial in the Nov. 24, 1947 issue of AIR CONDITIONING & REFRIGERATION NEWS entitled, "Next Year We May Plant Victory Gardens Again," is in our opinion one of the finest articles ever written about the home freezer and frozen foods. As distributors of Philco freezers, we would like your permission to use this editorial in all or part.

HOWARD S. HOPKINS,
Sales Manager

GOVT. EXEMPTS UNITS REQUIRING DUCTWORK

General Refrigeration Division
Beloit, Wis.

Editor:

The writer recalls seeing in one of your issues last summer that the excise tax had been removed from self-contained air conditioning units of the store-cooler type.

Recently, we wrote to the Milwaukee office of the Internal Revenue Department for information on this, and they advise us that this tax is still applicable.

J. B. EDWARDS

Answer: The NEWS (June 30, page 1) carried an article headlined "Excise Dropped From Some Air Conditioners." This report stated that the 10% excise tax had been removed from those air conditioners which are not self-contained in the strictest sense. The tax still applies to units which plug into standard electrical outlets and use no ductwork nor water connections.

Store-type conditioners which have either water connections or ductwork apparently would not be subject to tax.

At these 2 big shows... VISIT

FRIGIDAIRE

5th ALL-INDUSTRY REFRIGERATION and
AIR-CONDITIONING EXPOSITION—Jan.
26-29, Public Auditorium, Cleveland, O.

8th INTERNATIONAL HEATING and
VENTILATING EXPOSITION—Feb. 2-6
Grand Central Palace, New York City

The Holl-Ines Dist. Co.



offers
The Premier Kit—\$25.29 ea.
Coldspot Blades—\$1.00 ea.
Rollers for Norge pumps—
\$3.75 ea.
Blades for Norge pumps—
\$2.35 ea.
Mayson Valves, Model D—
\$3.23 ea.
Jarrow Door Gaskets.
Jarrow Corner Notcher—
\$4.98 ea.
Schultz Seal Puller—\$1.90 ea.
Chex-It, Coldspot check—
\$2.50 ea.

Send for circular
HOLL-INES DIST. CO.
BOX 164—DUMONT, N. J.



INSPECT...

A Dramatic Frigidaire
Showing in Cleveland

Space 1217

- Dry Beverage Coolers
- Store Air Conditioners
- Ice Cream Cabinets
- Home Freezers
- Forced Air and Gravity Cooling Units
- Water Coolers
- Famous Meter-Miser Mechanism
- Reciprocating Compressors
- Installation—Service parts and accessories
- Striking photographic display of other Frigidaire products

GET A CLOSE-UP...

Of Frigidaire's
Air Conditioning Products
in New York

Space 401-404

- Room Coolers
- Store Air Conditioners
- Central System Equipment
- Famous Meter-Miser Mechanism
- Reciprocating Compressors
- Multipath Cooling Units



YOU'RE TWICE AS SURE WITH TWO GREAT NAMES

FRIGIDAIRE

MADE ONLY BY

General Motors

ALL TYPES OF COMMERCIAL REFRIGERATION AND AIR CONDITIONING EQUIPMENT
REFRIGERATORS • ELECTRIC RANGES • ELECTRIC WATER HEATERS • AUTOMATIC WASHER • HOME FREEZER
ELECTRIC IRONER • AUTOMATIC ELECTRIC CLOTHES DRYER • KITCHEN CABINETS AND SINKS

In the Heart OF DETROIT

FACING GRAND CIRCUS PARK

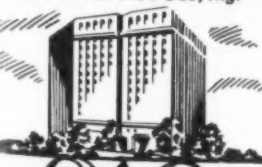
The Tuller, a modern hotel for those who want the best! Convenient to Offices, Theaters, and Shops. Friendly, courteous service and real Hotel Comfort. The Tuller Coffee Shop or Cafeteria for your Dining Pleasure at modest prices. It pays to stay at Hotel Tuller.

VISIT OUR
COCKTAIL LOUNGE
ONE OF DETROIT'S FINEST

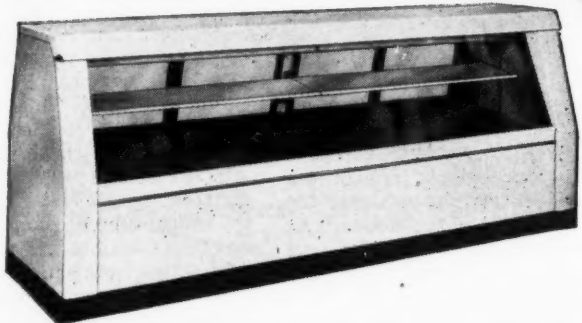
800 ROOMS \$2.75
WITH BATH FROM

HOTEL TULLER

RICHARD C. HODGES, Mgr



the case of the missing case



• We've got a good case, but it won't be at the Show. Care and feeding of production problems kept us from being in time. However, we are rapidly catching up. We have a number of attractive dealership and distributorship set-ups available. Write today for information.

GOLDSMAN

Manufacturers of Commercial Refrigerators
1325 N. LAWRENCE STREET • PHILADELPHIA 22, PA.

Industry Show Will Mark Introduction Of Many New and Redesigned Products

Heat-X-Changer Water Cooler Makes Ice Cubes

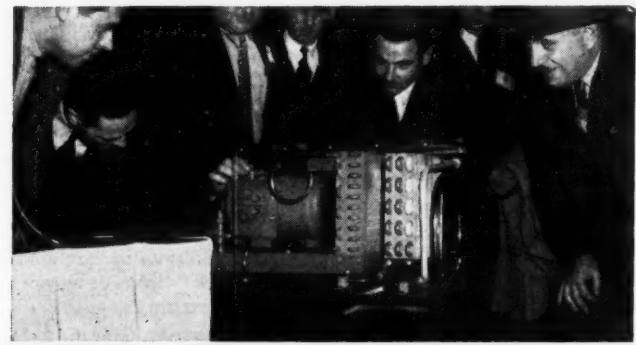
Two operating displays—a compact cooler carbonator unit and a self-contained bottle water cooler complete with a large storage compartment and ice-making features—will be set up by Heat-X-Changer Co., Inc., to attract visitors to its booth. The complete exhibit will consist of typical examples of the company's line of liquid cooling lowside. According to Heat-X-Changer, all of the coolers incorporate the exclusive Heat-X principle of casting the tubing circuits into a solid aluminum block.

Cecil Boling, W. J. Donovan, L. G. Underhill, J. K. Campbell, F. C. Hawk, J. H. Reilly, H. I. Schmidt, M. E. Corbin, and R. A. Chadburn will be in space 125 to greet visitors.

Twin 'Miracula' Heat Pumps Will Make Debut

For the first time anywhere, the Gemco Miracula heat pump will be put on display and demonstrated at the All-Industry Exposition.

Visitors to the General Engineering & Mfg. Co. booth, occupying spaces 315, 317, and 319, will see two identical units in operation, one heating and the other cooling. The Miracula uses the natural heat of the earth to heat or cool a home, according to F. H. Eldredge, sales promotion manager.



Like this scene from a crowded booth at the last All-Industry Show, representatives from all branches of the industry will give close inspection to the many new items which will go on display in Cleveland, Jan. 26-29.

In addition, both the 1947 and 1948 models of the Gemco air conditioner will be displayed. The Gemco air conditioner, a postwar development, was introduced to the public and sold through national distribution channels for the first time during the past year, Eldredge said.

The unit is claimed to be unique in its two stage compression cycle that is said to greatly reduce motor load on starting and permit the use of city, well, or recirculated water at considerably higher temperatures than heretofore thought practicable for cooling.

The 1948 model incorporates minor design changes and improvements but remains the same in all essentials as the 1947 model, Eldredge declared.

Besides Eldredge, Gemco officials at the booth will include N. B. Schreiber, board chairman and general manager; J. H. Schreiber, president; J. Y. Hewitt, general sales manager; Ernest Gyax, chief engineer; and James Lamb, service manager.

'Something Completely New' Promised by Peerless, Inc.

Peerless of America, Inc., is going to introduce "something completely new" at the exposition, but you'll have to go to booths 707 and 709 to find out what it is.

"It is impossible at this time to disclose what these new items are, as we are keeping them secret until the show," announces M. W. Knight, general sales manager.

Peerless will also exhibit its standard line of coils, cube makers, unit coolers, cold plates, gun coolers, etc.

R. W. Kritzer, Knight, W. A. Honeychurch, J. M. O'Connor, Carl E. Johnson, David Snow, Roy Stuhlman, R. M. Carberry, H. B. Weeks, and R. L. Williams will head up booth personnel.

Stainless Steel Cabinets Mark Crown's Display

All the stainless steel reach-in farm freezers, and beverage coolers to be exhibited at the show by Crown Refrigerator Corp. are new in design and construction, the company reports.

It announces that these improvements are to be featured: stainless steel cases sealed in envelope to prevent surface scratches in shipping and display, all steel welded construction, and all hulls, tanks, and assembly completely sealed against air leakage.

The company will occupy space 318.

HAROLD PFEIFER
Vice-President

ELMER C. HARPER
President

UNITED
PRODUCTS
WORKERS
of Tecumseh, Mich.
C.U.A. AFFILIATES

LESTER A. HANDY
Secretary

LYMAN A. CURTISS
Treasurer

Union Activities



In the development of America's economic system, too much has been made of an imaginary line drawn between labor and management groups. Both are free expressions of individual rights and opportunities. Both have the same ultimate objectives. And both are measured by their capacity to serve under a free competitive economy.

On May 20, 1937, the employees of Tecumseh Products Company formed The United Products Workers of Tecumseh, an independent organization now affiliated with the Confederated Unions of America. It has ably served its membership without recourse to strikes or violence and it has extended its measure of service to include active participation and leadership in many local civic programs . . . Boy Scouts, Red Cross, Hospital Fund, Recreation Center, Chamber of Commerce, and others.

TECUMSEH PRODUCTS COMPANY
Tecumseh, Michigan



BOOTH 914-A ALL INDUSTRY SHOW

FOR PERFECT REFRIGERATION ON EVERY JOB

"Recold" Tiny-Mite Suctionair—the perfect coil for small installations.

"Recold" Supreme, especially adaptable for storage of meats and flowers.

"Recold" Water Defrost Humid Air Evaporators. For all low temperature applications.

The NEW "Recold" Evaporative Condenser. Revolutionary in Engineering and Design.

A Complete Line of Unit Coolers, Evaporative Condensers and Floor Units.

More than fifteen years of successful manufacturing experience are behind every "Recold" product.

See the Full Line — Booth 914A

REFRIGERATION ENGINEERING, INC.

7250 East Slauson, Los Angeles 22, Calif.

New Products Debuts Planned for January

Typhoon To Introduce 'Console' Conditioners

The trade will get its first look at Typhoon Air Conditioning Co., Inc.'s new 1½ and 2-ton compact console unit at the exposition.

Typhoon, a division of Ice Air Conditioning Co., Inc., will present the console unit along with its line of self-contained air conditioning units, including the 3, 5, and 7-ton sizes. These units are said to incorporate improvements and refinement in design.

Also on display will be the Typhoon low side and floating base high side units.

Those in attendance at booth 907 will include J. F. Dailey, president; E. L. Garfield, treasurer; Don Peterson, sales manager; Don Dailey, assistant sales manager; and Murray Kabil, chief engineer.

'Lockerator' Refrigerator In Stoddard Exhibit

A new Lockerator refrigerator and two new Lockerator freezers will be exhibited at the All-Industry Exposition by the Stoddard Mfg. Co., Inc.

The refrigerator and one freezer will be of a new table top kitchen design, according to company officials. The other freezer will be an upright model with 13½ cut ft. capacity. The firm's booth is No. 1019.

Hudson To Bow In 3-Way Drink Dispenser

The new Hudson 3-way drink dispenser, manufactured by the Hudson Products Co. of Detroit, will make its bow in booth 502 at the Exposition and will share space with the Hudson constant pressure carbonator.

The dispenser is a soft drink dispensing apparatus for bars and soda fountains which will give two soft drinks and plain soda water from the

Not Going To the Show?

For those who are not planning to attend the All-Industry Show, these previews of the exhibits will provide a guide as to what's coming up in the way of new or improved products in 1948. They will help wholesalers and retailers of commercial refrigeration, air conditioning and low-temperature equipment, and parts and supplies in making their plans for the coming year.

same faucet. It is claimed by James L. Hudson, president, to be a great space saver, taking up no more space than is being used by the present soda fountain faucet.

The carbonator is a motorless vent type unit that will work on practically any available water pressure without a pump and yet will maintain an absolutely even pressure on the draft arm or mixing faucet, according to Hudson.

Pacific Mfg. Has Redesigned Window-Type Conditioner

"A complete new model with many radical improvements" is the claim made for the Pacific Mfg. Corp.'s model 75W, ¾-hp., window-type packaged air conditioner. For further details, drop in at booth 1109 at the All-Industry Exposition.

MARSH

Pressure Gauges
Dial Thermometers

★The gauge with the
Recalibrator

Ask for this New
Refrigeration Booklet

JAS. P. MARSH CORP.
DEPT. O, SKOKIE, ILLINOIS

HEAT TRANSFER EQUIPMENT

MARLO
COIL COMPANY

SAINT LOUIS, MISSOURI

Fogel Features Low-Boy, Self-Service Cases

The model 4300 Low-Boy, a counter-height case for wrapping, weighing, and displaying will be seen by Show visitors to the Fogel Refrigerator Co. booth, No. 1021.

Another of the new items scheduled for exhibition is a self-service, refrigerated open display case. Fogel will also display many other products in the commercial line, all of which have more modern construction and heavy insulation, the company said. At the booth will be a reach-in refrigerator, Model R-19; a wall case, Model RW-7; a walk-in cooler; and a 6-ft. display case, Model 5000.

'Defrostulator' Will Be Bowed In By Tenney

Better automatic defrost is claimed for Tenney Engineering's "Defrostulator," which will be among the new products shown at the Exposition. Utilizing Booth 423, Tenney will also display the new thermostatic expansion valve Model TS1-A with a fresh design.

To augment this exhibit the firm will show its regular line of thermostatic expansion valves, mullions, unit coolers, wall-mounted panel units, ice makers, and coil-fan combinations.

Westinghouse To Show Water, Milk Coolers

When visitors to the Westinghouse Electric Corp. booth ask "What's new?" representatives will point to the company's 1948 water coolers.

These models, Westinghouse reveals, feature foot-pedal control "for convenience and sanitation." Industrial types have stainless steel tops.

Milk coolers, featuring the hermetically-sealed, drop-in unit will also be shown in booth 419.

R. E. Ditsler, E. H. Wilkens, Jr., J. J. White, F. E. Moquin, H. F. Hildreth, and J. B. Baughman will come from Springfield to represent the company.

New Coils, Conditioners Readied by Larkin

New design is also the feature being promoted by Larkin Coils which will show its blowers, evaporative condensers, and industrial units from Spaces 710 and 712. Additional products in evidence there will be air conditioning units, water coolers, and floor-type coolers.

Supermetic Sealed Units To Be Stressed by Servel

Occupying booths 429, 431, and 433, the Servel, Inc., exhibit will be built around condensing unit products with particular emphasis on features of the Servel Supermetic hermetically sealed line, reports O. B. Lance, sales promotion supervisor.

The following Servel personnel will go to Cleveland for the show:

George S. Jones, vice president in charge of sales; O. J. Dail, assistant to the executive vice president; Clyde Ploeger, chief engineer; Bill Aulsebrook, sales manager; Harry Bell, eastern manager; Carl Olin, western manager; George Eager, service manager; John Zubrod, application manager; Norm Schnur, assistant to the sales manager; Lance; Emile Hufnagel and Ted Parr, service department, and four district managers.

THERE'S NO "RULE OF THUMB" FOR LEADERSHIP.

FROZEL LOW TEMPERATURE SELF-SERVICE CASE

Leaders earn their position; it demands vision . . . hard work . . . sound thinking. Thousands of retailers say Weber leads its field in every sense . . . and has for nearly 50 years! Weber quality, Weber developments in design and refrigeration engineering have continuously set the standard for others to follow . . . have earned more profits for retailers the world-over. Too, refrigeration servicing organizations say the sound design and quality construction of Weber Equipment makes servicing a cinch . . . and profitable. Look for the Weber World in Markets—Restaurants—Theatres—Confectionery Stores—Hotels—Drugstores—Fountains—Bars—Bakeries—Florists—Clubs—Homes—and other retail outlets.

INVESTIGATE . . . AND YOU'LL INVEST IN WEBER

ROLL-A-DOOR BULK ICE CREAM CABINET

Weber's Roll-A-Door Soda Fountain alone or with Weber's Roll-A-Door Cabinet for bulk ice cream gives more profit per square foot.

SUPER SERV-MASTER—AMERICA'S FINEST PRODUCE CASE

SODA FOUNTAIN 63 GALLON

WEBER

SHOWCASE & FIXTURE CO., INC.

5700 Avalon Boulevard • Los Angeles 54 • California
LOS ANGELES • EL PASO SALES OFFICES IN ALL PRINCIPAL
CITIES • WAREHOUSE STOCKS IN KEY METROPOLITAN AREAS



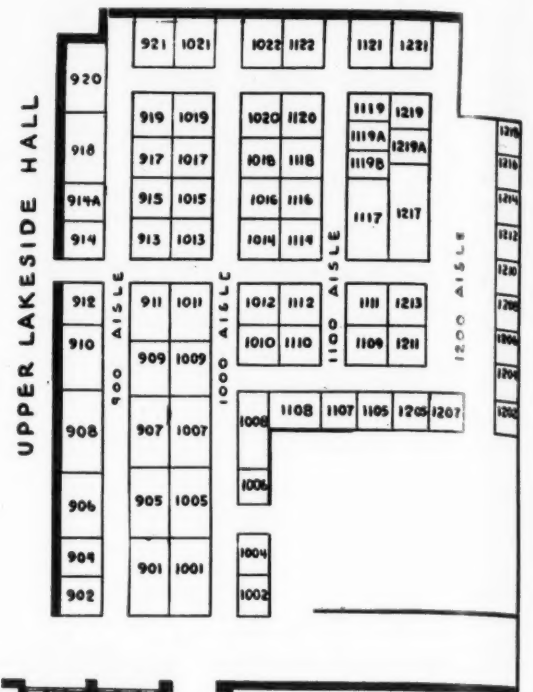
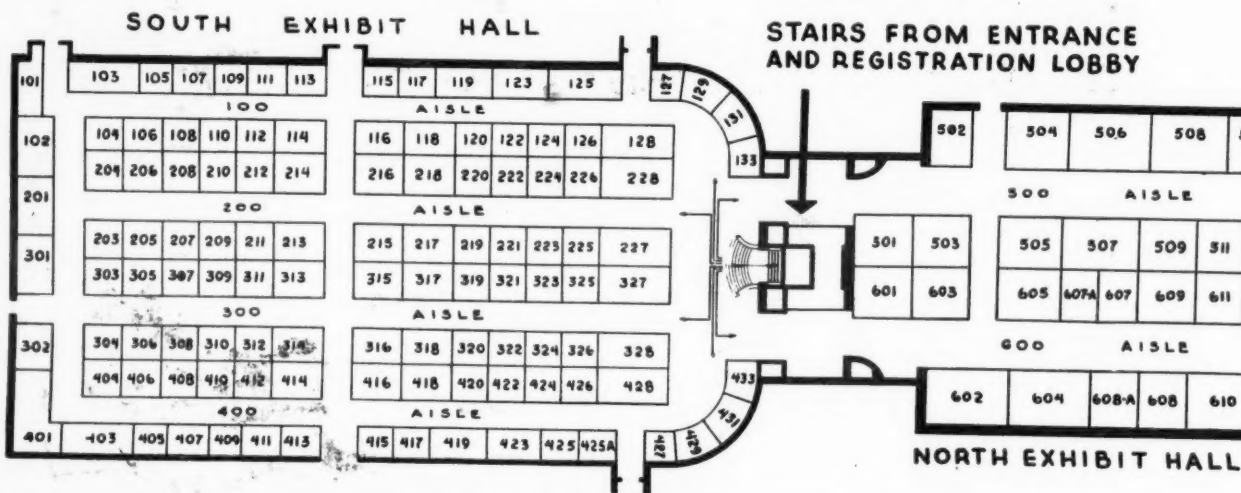
Floor Plan and Key To Exhibits For All-Industry Show

Ace Cabinet Corp. 905
 Acme Industries, Inc. 604
 Air Conditioning & Refrigeration News 507
 Airserco Mfg. Co., Inc. 424
 Alco Valve Co. 608
 Aluminum Co. of America 918
 American Brass Co. 217
 American Flange & Mfg. Co., Inc. 1112
 American Injector Co. 126
 American Refrigerator & Machine, Inc. 711
 The American Society of Refrigerating Engineers 1204
 Ansul Chemical Co. 713
 Arcade Mfg. Div., Rockwell Mfg. Co. 1216
 Armstrong Cork Co. 409
 Automatic Products Co. 504
 Baker Ice Machine Co., Inc. 506
 Bally Case & Cooler Co. 1105 & 1107
 Baltimore Aircoil Co., Inc. 1212
 Berry Motors, Inc. 1122
 Betz Corp. 609
 R. H. Bishop Co. 112
 Black, Sivalis & Bryson, Inc. 320
 Bonney Forge & Tool Works 328
 The Braquinda Corp. 917 & 919
 Brewer-Titchener Corp.,
 Crandal-Stone Div. 1020
 Brunner Mfg. Co. 304, 306 & 308
 Bundy Tubing Co. 407
 Bush Mfg. Co. 610
 Butcher Boy Cold Storage Door Co. 101
 C. Schmidt Co. 113
 Century Electric Co. 909

Chicago Seal Co. 323 & 325
 Chrysler Corp., Airtemp Div. 103 & 105
 Cleveland Graphite Bronze Co. 921
 Cleveland Refrigerator Co. 915
 Colbar, Inc. 108 & 110
 Coleman Equipment Co., Inc. 1219A
 Coolstream Corp. 1006
 Copeland Refrigeration Corp. 703 & 705
 Cordley & Hayes 401
 Cornelius Co. 914
 Crown Refrigerator Corp. 318
 Curtis Refrigerating Machine Div. of
 Curtis Mfg. Co. 210, 212 & 214
 Cutler-Hammer, Inc. 128
 The Davison Chemical Corp. 311 & 313
 Day & Night Mfg. Co. 225
 Dayton Rubber Mfg. Co. 415 & 417
 Detroit Lubricator Co. 503 & 603
 Dole Refrigerating Co. 605
 E. I. du Pont de Nemours & Co. 414
 Eaton Mfg. Co. 1116
 The Ebco Mfg. Co. 203, 205, 303 & 305
 The Electromatic Div. of the
 Simoniz Co. 215
 Eston Chemicals, Inc. 224
 Evans Mfg. Corp. 1119
 Fedders-Quigan Corp. 403
 Fleetwood-Airflow, Inc. 911
 Franklin Refrigeration Co. 1120
 Fogel Refrigerator Co. 1021
 Frigidaire Div. of G.M.C. 1217
 General Controls Co. 314

General Electric Co. 115, 117, 416 & 418
 General Engineering &
 Mfg. Co. 315, 317 & 319
 L. H. Gilmer Co. 1010
 Grand Rapids Brass Co. 223
 Halstead & Mitchell 425A
 The Heat-X-Changer Co., Inc. 125
 Heating, Piping & Air Conditioning ... 1119A
 Henry Valve Co. 227
 Highside Chemicals Co. 321
 Hudson Products Co., Inc. 502
 Ideal Cooler Corp. 902
 The Imperial Brass Mfg. Co. 426 & 428
 Jack & Heintz Precision Industries, Inc. 908
 Jamison Cold Storage Door Co. 1111
 Jarrow Products 322
 Jordon Refrigerator Co. 906
 Kason Hardware Corp. 208
 Kerotest Mfg. Co. 220 & 222
 Kinetic Chemicals, Inc. 216
 Kleen-Kut Mfg. Co. 209
 Kold-Hold Mfg. Co. 411 & 413
 Kramer Trenton Co. 116 & 118
 La Crosse Cooler Co. 1110
 Larkin Coils 710 & 712
 Lehigh Mfg. Co. 226 & 228
 Lewin-Mathes Co., Lewin Metals Div. 1022
 Linde Air Products Co. 1114
 Lynch Mfg. Corp. 102 & 201

(Continued on Page 31, Column 1)



Key to Exhibits

(Concluded from preceding page)

Liberty Motors & Engineering Corp.	1207
McCord Corp.	107
McCray Refrigerator Co.	1213
McIntire Connector Co.	611
McQuay, Inc.	602
Marlo Coil Co.	404, 406, 408 & 410
Jas. P. Marsh Corp.	114
Mayflower Products Co.	122
Mills Industries, Inc.	109, 111
Minneapolis Show Case & Fixture Co.	1013
Minneapolis-Honeywell Regulator Co.	701
Mitchell Mfg. Co.	1017
Muellet Brass Co.	307 & 309
Nash-Kelvinator Corp.	
Kelvinator Div.	901 & 1001
National Association of Refrigeration Contractors	1218
National Commercial Refrigerator Sales Assn.	1202
Nevinger Mfg. Co., Inc.	913
Nickerson & Collins Co.	104 & 106
Orley Freezers, Inc.	1210
Owens-Corning Fiberglas Corp.	1005
The Pacific Lumber Co.	1208
Pacific Mfg. Corp.	1109
Paley Mfg. Corp.	910
Peerless of America, Inc.	707 & 709
Penn Brass & Copper Co.	613
Penn Electric Switch Co.	1011
H. A. Phillips & Co.	912
Polar Hardware Co.	124
Prest-O-Matic Products Co., Inc.	405
Quillen Bros. Refrigerator Co.	1009
Ranco Inc.	310 & 312
Redmond Co., Inc.	1211
Refrigeration Appliances, Inc.	1015
Refrigeration Corp. of America	508, 510 & 512
Refrigeration Engineering, Inc.	914A
Refrigeration Engineering Co.	1205
Refrigeration Equipment Wholesalers Assn.	1206
Refrigeration Publications, Inc.	607
Refrigeration Service Engineers Society	1214
Rotary Seal Co.	207
Remco, Inc.	425
Safe-Way Food Locker Co.	412
Sanitary Refrigerator Co.	218
Schnacke, Inc.	123
Servel, Inc.	429, 431 & 433
Spencer Thermostat Co.	1008
Sporlan Valve Co.	219 & 221
Standard Refrigeration Co.	324 & 326
The Stangard-Dickerson Corp.	327
Stoddard Mfg. Co., Inc.	1019
Sun Oil Co.	920
Superior Valve & Fittings Co.	301
A. O. Smith Corp.	1219
The Halsey W. Taylor Co.	120
Tecumseh Products Co.	708
Temprite Products Corp.	509
Tenney Engineering, Inc.	423
The Texas Co.	904
Emery Thompson Machine & Supply Co.	1016
The Torrington Mfg. Co.	1108
Tube Manifold Corp.	1018
Tyler Fixture Corp.	1002 & 1004
Typhoon Air Conditioning Co.	907
United Cork Companies	316
United Frigurator Engineers	427
United Refrigerator Mfg. Co.	511 & 513
Universal Cooler Div., International Detrola Corp.	127, 129, 131 & 133
Victor Products Corp.	1012
Victory Metal Mfg. Corp.	501 & 601
Virginia Smelting Co.	204 & 206
Wagner Electric Corp.	1118
Wabash Mfg. Co.	302
Wagner Tool & Supply Corp.	1119B
Ward Refrigerator & Mfg. Co.	1121 & 1221
The Weatherhead Co.	119
Weber Showcase & Fixture Co., Inc.	1117
Westinghouse Electric Corp.	419
White-Rodgers Electric Co.	211 & 213
Wilson Refrigeration, Inc., Div. of Wilson Cabinet Co.	702, 704 & 706
Wolverine Tube Div.	505
The Yoder Co.	1014
York Corp.	420 & 422

Central Wholesalers
Name Potter Chairman

MELROSE PARK, Ill.—R. M. Potter of the U. S. Electric Co. has been elected chairman of the Central Refrigeration Wholesalers Association for the 1948 season, Pat Ravanesl, retiring secretary, has reported.

Potter, who was vice chairman this year, succeeds L. C. Keely of Airo Supply Co.

Other officers elected at the last meeting of the group for this year were: Pat Ravanesl, vice chairman; G. A. Larson, treasurer; and V. J. Sweeney, secretary.

Worthington Pump Sets Up New
District Office In Seattle

SEATTLE—A new district office for the Worthington Pump & Machinery Corp. has been established at 2616 Western Ave. here with E. D. Schively as manager, the company has announced.

The place will also serve as a dealer's warehouse.

Dealer Tells Taverns How
Freezer Saves 50% Loss
On Melted Cubes

HIGHLAND PARK, Ill.—Storing ice cubes in a home freezer proved to be a potent sales idea for John Bosselli, Deepfreeze dealer here.

Knowing that a number of local restaurants and taverns bought commercially frozen ice cubes, he investigated and found that they were losing 50% of them from meltage because they did not have proper facilities for storing them. He promptly told tavern and restaurant owners that through ice cube savings alone the freezer could pay for itself in 60 days. Two days later, Bosselli had sold 10 deluxe model Deepfreeze units.

Air Cooling Permit Issued

SARASOTA, Fla.—Records at the city hall shows a \$20,000 building permit was issued to the Florida Theater for installation of air conditioning facilities.

Kinetic Chemicals Distributes Free Wall, Desk Charts
On Refrigerant Temperature-Pressure Relationships

WILMINGTON, Del.—Two wall or desk charts covering the saturated pressure-temperature relationships of refrigerants which were recently compiled and published by Kinetic Chemicals, Inc., are now available to the trade without charge, the company announced.

The charts cover not only the eight "Freon" refrigerants currently being produced but also 18 additional chemicals that are being or have been used by the air conditioning, household, commercial, or industrial refrigeration industries, according to R. J. Thompson, sales manager (technical).

Printed in black on white, the charts are approximately 23 by 26 in. Chart I covers the temperature range of -40 to 250° F. and Chart II the range of -180 to 60° F., with the pressure ranges of both charts from 29.72 in. of mercury vacuum (.1 p.s.i.a.) to 985 p.s.i. gauge (1,000 p.s.i.a.).

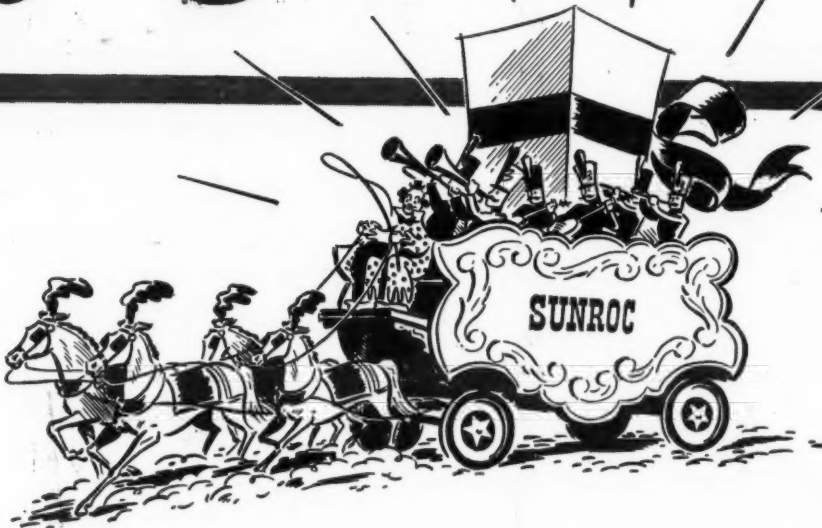
"The two charts covering the two

ranges of temperatures were prepared to permit of more accurate and rapid temperature readings being made," Thompson said, "and also wider fields of pressures and temperatures are covered than by any chart previously made readily procurable. The indexed rulings on the charts are logarithmic and of four cycles for the vertical scale (pressure), while the horizontal scale (temperature) is 1."

He pointed out that the charts accurately represent the data appearing in the literature, adding that sources of such data will be given upon request.

"The form of pressure-temperature chart decided upon was the result of carefully investigating various forms and sizes of charts that had previously been prepared for use and also from the many expressions received from engineers and users of such data within the industry," he said.

really great for '48!



● The trade expects great things from Sunroc in '48—and it will not be disappointed.

First and foremost, Sunroc will soon unveil its newest model: an all-purpose water cooler of truly revolutionary design. Climaxing a line which is already the finest and most diversified in America, this new cooler will give the Sunroc Distributor a more emphatic edge than ever.

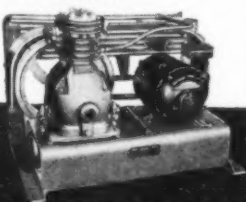
Competition has nothing like it; an eager market is set up for the kill. A market so vast that it will tax even Sunroc's nationwide selling

organization. That's where you come in, if you have the hustle and capacity to handle one of the most sought-after franchises in the United States.

Get the facts about all that Sunroc has to offer you as a Sunroc Distributor. The most comprehensive range of ultra-modern AC and DC water coolers for business, industrial, and institutional use. *Immediate delivery.* National, local, and direct mail advertising. Full factory cooperation in selling and servicing, every step of the way. Mail the coupon *today*.

Lipman
AUTOMATIC REFRIGERATION

PIONEERS in the refrigeration field since 1917 LIPMAN Machines give dependable service, low cost operation. Designed for use with Methyl Chloride, Ammonia, Freon 12. Units are available in sizes from 1/4 thru 40 H.P.



GENERAL REFRIGERATION
DIVISION
VALLEY-AMERICAN MACHINE CO., BRIDGE, WISCONSIN

SUNROC

Water Coolers

GLEN RIDDLE, PA.

"SUNROC SERVES THE WORLD... a Cool Drink of Water"

Distributors throughout America and in 30 Foreign Countries
Branch Offices in Principal Cities

SUNROC REFRIGERATION COMPANY
GLEN RIDDLE, PA.

Please send me, without obligation, full details of the Sunroc line and Sunroc Franchise for ☐ Dealers ☐ Distributors. (Check which.)

Company _____
Address _____
City _____ Zone _____ State _____
Address to Mr. _____ (AC-12)

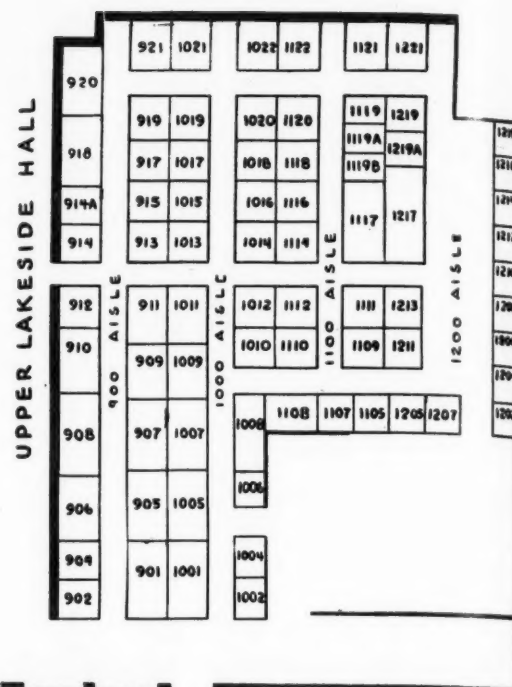
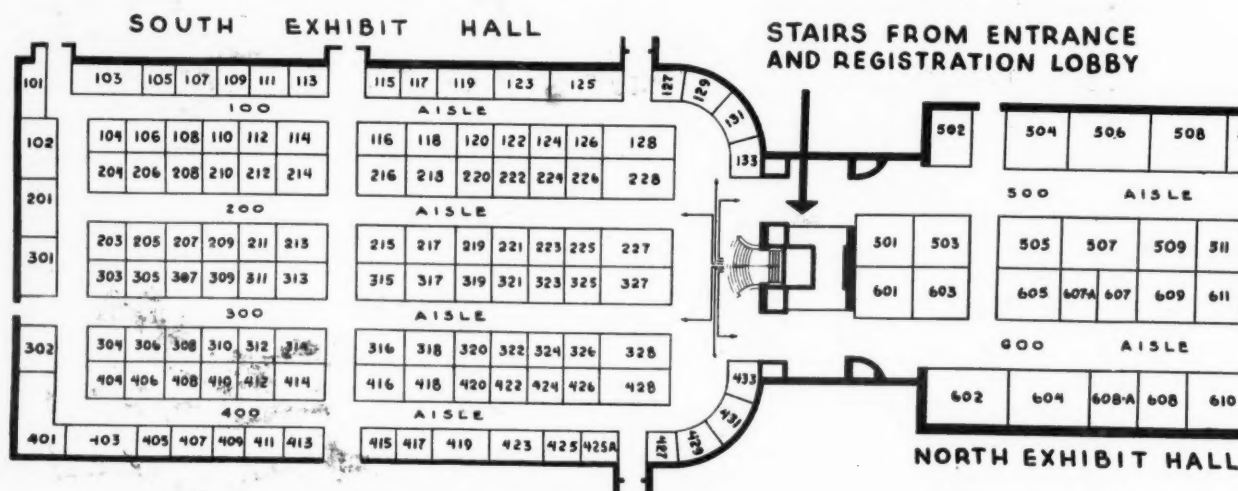
Floor Plan and Key To Exhibits For All-Industry Show

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 Air Conditioning & Refrigeration News 507
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 American Flange & Mfg. Co., Inc. 1112
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 The American Society of Refrigerating Engineers 1204
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 Crandal-Stone Div. 1020
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 Bundy Tubing Co. 407
 Bush Mfg. Co. 610
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 C. Schmidt Co. 113
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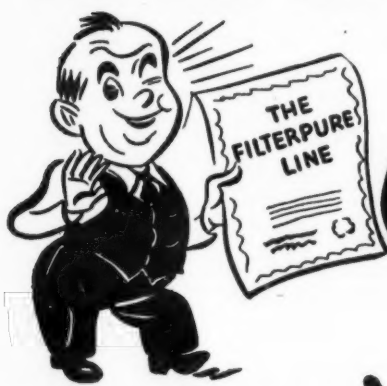
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 Detroit Lubricator Co. 503 & 603
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 Fleetwood-Airflow, Inc. 911
 Franklin Refrigeration Co. 1120
 Fogel Refrigerator Co. 1021
 Frigidaire Div. of G.M.C. 1217
 General Controls Co. 314

General Electric Co. 115, 117, 416 & 418
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 Grand Rapids Brass Co. 223
 Halstead & Mitchell 425A
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 Heating, Piping & Air Conditioning... 1119A
 Henry Valve Co. 227
 Highside Chemicals Co. 321
 Hudson Products Co., Inc. 502
 Ideal Cooler Corp. 902
 The Imperial Brass Mfg. Co. 426 & 428
 Jack & Heintz Precision Industries, Inc. 908
 Jamison Cold Storage Door Co. 1111
 Jarrow Products 322
 Jordan Refrigerator Co. 906
 Kason Hardware Corp. 208
 Kerotest Mfg. Co. 220 & 222
 Kinetic Chemicals, Inc. 216
 Kleen-Kut Mfg. Co. 209
 Kold-Hold Mfg. Co. 411 & 413
 Kramer Trenton Co. 116 & 118
 La Crosse Cooler Co. 1110
 Larkin Coils 710 & 712
 Lehigh Mfg. Co. 226 & 228
 Lewin-Mathes Co., Lewin Metals Div. 1022
 Linde Air Products Co. 1114
 Lynch Mfg. Corp. 102 & 201

(Continued on Page 31, Column 1)



WE ARE JUSTLY PROUD OF OUR



Filterpure Wholesalers

FILTERPURE'S POPULARITY WITH THE TRADE,
 PLUS BETZ CORPORATION'S DISTRIBUTION POLICY
 HAS WON THE WHOLEHEARTED APPROVAL OF THESE
 LEADING WHOLESALERS FROM COAST TO COAST.

ALABAMA

Dothan.....Hand Radio & Refrigeration Company
 Mobile.....Enochs Sales Company

ARKANSAS

Little Rock.....N. O. Nelson Company
 Little Rock.....Refrigeration & Electric Supply Company

CALIFORNIA

Sacramento.....Hinshaw Supply Company
 San Francisco.....Hinshaw Supply Company

COLORADO

Denver.....McCombs Refrigeration Supply Company
 Pueblo.....McCombs Refrigeration Supply Company
 Pueblo.....N. O. Nelson Company

FLORIDA

Jacksonville.....Refrigeration Supply Corporation
 Miami.....Ace Refrigeration Supplies
 Miami.....Graves Refrigeration Company
 Orlando.....G. W. Mann
 Tampa.....Graves Brothers Refrigeration Supplies, Inc.

GEORGIA

Atlanta.....Graves Refrigeration, Inc.

ILLINOIS

Chicago.....The Harry Alter Company
 Chicago.....Automatic Heating & Cooling Supply Co.
 Chicago.....Chase Refrigeration Supply Company
 Melrose Park.....Service Parts Company
 Peoria.....Marquette Equipment Company
 Peoria.....Polar Supply Company
 Rockford.....Gustave A. Larson Company
 Springfield.....United States Electric Company, Inc.

INDIANA

Evansville.....F. H. Langsenkamp Company
 Fort Wayne.....F. H. Langsenkamp Company
 Indianapolis.....F. H. Langsenkamp Company
 South Bend.....F. H. Langsenkamp Company

IOWA

Davenport.....Gustave A. Larson Company
 Des Moines.....White Refrigeration Supply
 Dubuque.....Gustave A. Larson Company
 Sioux City.....Dennis Refrigeration Supply

KANSAS

Wichita.....Refrigeration Equipment Company

KENTUCKY

Louisville.....F. H. Langsenkamp Company

LOUISIANA

Monroe.....Humphries Refrigeration Supply Company
 New Orleans.....Acme Refrigeration Supplies, Inc.
 New Orleans.....Enochs Sales Company

MICHIGAN

Detroit.....Lee Equipment Company
 Flint.....Lifsey Distributing Company
 Grand Rapids.....Harris Supply Company
 Kalamazoo.....Harris Supply Company

MINNESOTA

Duluth.....Refrigeration Wholesalers, Inc.
 Minneapolis.....Refrigeration & Industrial Supply Co.
 Saint Paul.....Refrigeration Supply Company, Inc.

MISSISSIPPI

Jackson.....N. O. Nelson Company
 Jackson.....Refrigeration & Air Conditioning Suppliers

MISSOURI

Cape Girardeau.....N. O. Nelson Company
 Jefferson City.....N. O. Nelson Company

Joplin.....N. O. Nelson Company
 Kansas City.....Refrigeration Equipment Company
 Kansas City.....Superior Refrigeration Supply
 Saint Louis.....N. O. Nelson Company

MONTANA

Billings.....Refrigeration Supply Company

NEBRASKA

Lincoln.....Wickham Supply Company
 Omaha.....Dennis Refrigeration Supply

NEW YORK

Buffalo.....Jordan Supply Company
 New York City.....The Harry Alter Company

NORTH DAKOTA

Fargo.....Refrigeration Supply Company

OHIO

Cincinnati.....Williams and Company, Inc.
 Cleveland.....Williams and Company, Inc.
 Columbus.....Williams and Company, Inc.
 Dayton.....Allied Supply Company
 Lima.....Allied Supply Company
 Toledo.....Williams and Company, Inc.

OKLAHOMA

Oklahoma City.....Macklanburg Supply Company, Inc.
 Tulsa.....K and M Supply Company
 Tulsa.....Palmer Supply Company

OREGON

Portland.....Peerless Pacific Company

PENNSYLVANIA

Pittsburgh.....Williams and Company, Inc.

SOUTH CAROLINA

Charleston.....Roberts Refrigeration Supply Company

TENNESSEE

Memphis.....N. O. Nelson Company

TEXAS

Abilene.....C and H Distributing Company
 Austin.....N. O. Nelson Company
 Beaumont.....N. O. Nelson Company
 Corpus Christi.....United Refrigeration Company
 Dallas.....N. O. Nelson Company
 El Paso.....Hays Electric Service
 Fort Worth.....Texas Refrigeration Supply Company
 Houston.....N. O. Nelson Company
 Lubbock.....Texas Refrigeration Supply Company
 San Antonio.....United Refrigeration Company
 Waco.....N. O. Nelson Company
 Wichita Falls.....N. O. Nelson Company

UTAH

Salt Lake City.....N. O. Nelson Company

WASHINGTON

Seattle.....Peerless Pacific Company

WISCONSIN

Green Bay.....Gustave A. Larson Company
 Kenosha.....Gustave A. Larson Company
 Madison.....Automatic Temperature Supplies, Inc.
 Madison.....Gustave A. Larson Company
 Milwaukee.....Gustave A. Larson Company
 Oshkosh.....Gustave A. Larson Company
 Wausau.....Gustave A. Larson Company

WATCH THIS LIST GROW

BETZ CORPORATION

HAMMOND, INDIANA

Key to Exhibits

(Concluded from preceding page)

Liberty Motors & Engineering Corp.	1207
McCord Corp.	107
McClay Refrigerator Co.	1213
McIntire Connector Co.	611
McQuay, Inc.	602
Marlo Coil Co.	404, 406, 408 & 410
Jas. P. Marsh Corp.	114
Mayflower Products Co.	122
Mills Industries, Inc.	109, 111
Minneapolis Show Case & Fixture Co.	1013
Minneapolis-Honeywell Regulator Co.	701
Mitchell Mfg. Co.	1017
Mueller Brass Co.	307 & 309
Nash-Kelvinator Corp.	
Kelvinator Div.	901 & 1001
National Association of Refrigeration Contractors	1218
National Commercial Refrigerator Sales Assn.	1202
Nevinger Mfg. Co., Inc.	913
Nickerson & Collins Co.	104 & 106
Orley Freezers, Inc.	1210
Owens-Corning Fiberglas Corp.	1005
The Pacific Lumber Co.	1208
Pacific Mfg. Corp.	1109
Paley Mfg. Corp.	910
Peerless of America, Inc.	707 & 709
Penn Brass & Copper Co.	613
Penn Electric Switch Co.	1011
H. A. Phillips & Co.	912
Polar Hardware Co.	124
Prest-O-Matic Products Co., Inc.	405
Quillen Bros. Refrigerator Co.	1009
Ranco Inc.	310 & 312
Redmond Co., Inc.	1211
Refrigeration Appliances, Inc.	1015
Refrigeration Corp. of America	508, 510 & 512
Refrigeration Engineering, Inc.	914A
Refrigeration Engineering Co.	1205
Refrigeration Equipment Wholesalers Assn.	1206
Refrigeration Publications, Inc.	607
Refrigeration Service Engineers Society	1214
Rotary Seal Co.	207
Remco, Inc.	425
Safe-Way Food Locker Co.	412
Sanitary Refrigerator Co.	218
Schnacke, Inc.	123
Servel, Inc.	429, 431 & 433
Spencer Thermostat Co.	1008
Sporlan Valve Co.	219 & 221
Standard Refrigeration Co.	324 & 326
The Stangard-Dickerson Corp.	327
Stoddard Mfg. Co., Inc.	1019
Sun Oil Co.	920
Superior Valve & Fittings Co.	301
A. O. Smith Corp.	1219
The Halsey W. Taylor Co.	120
Tecumseh Products Co.	708
Temprite Products Corp.	509
Tenney Engineering, Inc.	423
The Texas Co.	904
Emery Thompson Machine & Supply Co.	1016
The Torrington Mfg. Co.	1108
Tube Manifold Corp.	1018
Tyler Fixture Corp.	1002 & 1004
Typhoon Air Conditioning Co.	907
United Cork Companies	316
United Friguator Engineers	427
United Refrigerator Mfg. Co.	511 & 513
Universal Cooler Div., International Detrola Corp.	127, 129, 131 & 133
Victor Products Corp.	1012
Victory Metal Mfg. Corp.	501 & 601
Virginia Smelting Co.	204 & 206
Wagner Electric Corp.	1118
Wabash Mfg. Co.	302
Wagner Tool & Supply Corp.	1119B
Ward Refrigerator & Mfg. Co.	1121 & 1221
The Weatherhead Co.	119
Weber Showcase & Fixture Co., Inc.	1117
Westinghouse Electric Corp.	419
White-Rodgers Electric Co.	211 & 213
Wilson Refrigeration, Inc., Div. of Wilson Cabinet Co.	702, 704 & 706
Wolverine Tube Div.	505
The Yoder Co.	1014
York Corp.	420 & 422

Central Wholesalers
Name Potter Chairman

MELROSE PARK, Ill.—R. M. Potter of the U. S. Electric Co. has been elected chairman of the Central Refrigeration Wholesalers Association for the 1948 season, Pat Ravanesl, retiring secretary, has reported.

Potter, who was vice chairman this year, succeeds L. C. Keely of Airo Supply Co.

Other officers elected at the last meeting of the group for this year were: Pat Ravanesl, vice chairman; G. A. Larson, treasurer; and V. J. Sweeney, secretary.

Worthington Pump Sets Up New
District Office In Seattle

SEATTLE—A new district office for the Worthington Pump & Machinery Corp. has been established at 2616 Western Ave. here with E. D. Schively as manager, the company has announced.

The place will also serve as a dealer's warehouse.

Dealer Tells Taverns How
Freezer Saves 50% Loss
On Melted Cubes

HIGHLAND PARK, Ill.—Storing ice cubes in a home freezer proved to be a potent sales idea for John Bosselli, Deepfreeze dealer here.

Knowing that a number of local restaurants and taverns bought commercially frozen ice cubes, he investigated and found that they were losing 50% of them from meltage because they did not have proper facilities for storing them. He promptly told tavern and restaurant owners that through ice cube savings alone the freezer could pay for itself in 60 days. Two days later, Bosselli had sold 10 deluxe model Deepfreeze units.

Air Cooling Permit Issued

SARASOTA, Fla.—Records at the city hall shows a \$20,000 building permit was issued to the Florida Theater for installation of air conditioning facilities.

Kinetic Chemicals Distributes Free Wall, Desk Charts
On Refrigerant Temperature-Pressure Relationships

WILMINGTON, Del.—Two wall or desk charts covering the saturated pressure-temperature relationships of refrigerants which were recently compiled and published by Kinetic Chemicals, Inc., are now available to the trade without charge, the company announced.

The charts cover not only the eight "Freon" refrigerants currently being produced but also 18 additional chemicals that are being or have been used by the air conditioning, household, commercial, or industrial refrigeration industries, according to R. J. Thompson, sales manager (technical).

Printed in black on white, the charts are approximately 23 by 26 in. Chart I covers the temperature range of -40 to 250° F. and Chart II the range of -180 to 60° F., with the pressure ranges of both charts from 29.72 in. of mercury vacuum (.1 p.s.i.a.) to 985 p.s.i. gauge (1,000 p.s.i.a.).

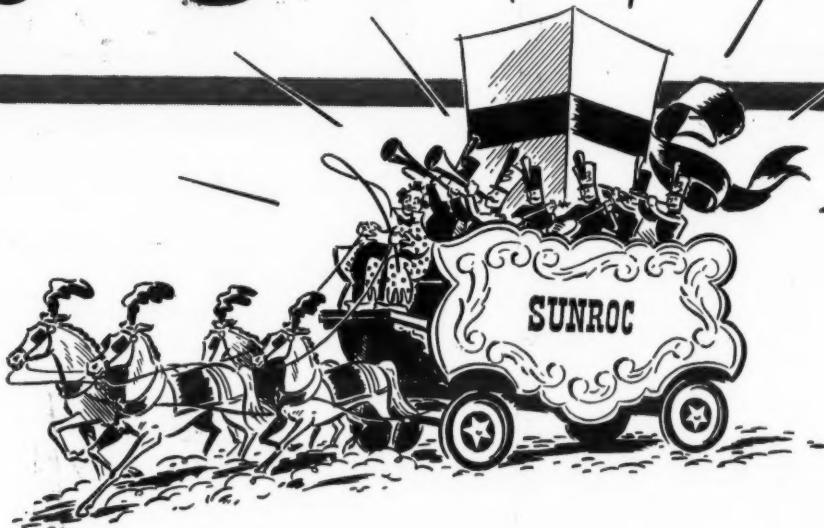
"The two charts covering the two

ranges of temperatures were prepared to permit of more accurate and rapid temperature readings being made," Thompson said, "and also wider fields of pressures and temperatures are covered than by any chart previously made readily procurable. The indexed rulings on the charts are logarithmic and of four cycles for the vertical scale (pressure), while the horizontal scale (temperature) is 1."

T
He pointed out that the charts accurately represent the data appearing in the literature, adding that sources of such data will be given upon request.

"The form of pressure-temperature chart decided upon was the result of carefully investigating various forms and sizes of charts that had previously been prepared for use and also from the many expressions received from engineers and users of such data within the industry," he said.

really great for '48!



● The trade expects great things from Sunroc in '48—and it will not be disappointed.

First and foremost, Sunroc will soon unveil its newest model: an all-purpose water cooler of truly revolutionary design. Climaxing a line which is already the finest and most diversified in America, this new cooler will give the Sunroc Distributor a more emphatic edge than ever.

Competition has nothing like it; an eager market is set up for the kill. A market so vast that it will tax even Sunroc's nationwide selling

organization. That's where you come in, if you have the hustle and capacity to handle one of the most sought-after franchises in the United States.

Get the facts about all that Sunroc has to offer you as a Sunroc Distributor. The most comprehensive range of ultra-modern AC and DC water coolers for business, industrial, and institutional use. *Immediate delivery.* National, local, and direct mail advertising. Full factory cooperation in selling and servicing, every step of the way. Mail the coupon *today*.

Lipman
AUTOMATIC REFRIGERATION

PIONEERS in the refrigeration field since 1917 LIPMAN Machines give dependable service, low cost operation. Designed for use with Methyl Chloride, Ammonia, Freon 12. Units are available in sizes from 1/4 thru 40 H.P.



GENERAL REFRIGERATION
DIVISION
YATES-AMERICAN MACHINE CO., Beloit, Wisconsin

SUNROC

Water Coolers

GLEN RIDDLE, PA.

"SUNROC SERVES THE WORLD... a Cool Drink of Water"

Distributors throughout America and in 30 Foreign Countries

Branch Offices in Principal Cities

SUNROC REFRIGERATION COMPANY
GLEN RIDDLE, PA.

Please send me, without obligation, full details of the Sunroc line and Sunroc Franchise for ☐ Dealers ☐ Distributors. (Check which.)

Company _____

Address _____

City _____

Zone _____

State _____

Address to Mr. _____

(AC-12)

Freon Condensers • Dry-Ex Water Chillers
• Evaporative Condensers • Forced Con-
vection Units • Oil Separators • Liquid
Receivers • Heat Exchangers • Pipe
Coils • Hi-Peak Water Coolers • Flooded
Water Coolers • Ammonia Condensers
BOOTH 604-CLEVELAND EXPOSITION



ACME INDUSTRIES INC.
651 Mechanic St., Jackson, Mich.
Offices in principal cities

FACTORY REPRESENTATIVE

A long established manufacturer entering the room conditioner field has opening for a salesman to work with Southeast and Southwest distributors and do a complete distributor-dealer promotion and selling job. Interested in man 30-40 years of age having experience with major appliances or room conditioning sales. Write giving full details of background.

Box 2589, Air Conditioning & Refrigeration News

Contract Schedule for Servicing Air Conditioning Units During First Year Insures Satisfaction of Cleveland Dealer's Customers

CLEVELAND—Courageous use of "big league" promotional methods, including a sustaining radio program and a strong newspaper schedule in Cleveland papers, has made Temperature Equipment Corp., four-star Airtemp dealer, one of the best known organizations in the field here. Starting from scratch in April of this year, the company has attained its present stature in the brief space of eight months.

By taking a good hard look at the balance sheet for the first three months operation, Carl W. Millsom, vice president and general manager, estimates that Temperature Equipment Corp. will do approximately one million dollars in gross business in its first full calendar year of operation. This will more than justify the policies established by Millsom in operating the business and the sizeable investment that has made these policies possible.

Temperature Equipment Corp. is located on upper Euclid Ave., well out of the downtown district of Cleveland, but on a street carrying very heavy traffic. Euclid Avenue, in fact, could be considered the "Main St." of Cleveland. It is adjacent to Arena Gardens, a sports emporium which draws tremendous crowds to fights, wrestling matches, and other events. For this reason, the large, well equipped show room is kept open in the evening and many "walk-in" prospects result.

Millsom knows, from long experience as a dealer and a field repre-

Maintenance Agreement

Temperature Equipment Corporation agrees, in accordance with terms hereafter specified, to service Chrysler Airtemp equipment owned by—

Name _____

Located at _____

and consisting of the following equipment: _____

Maintenance Agreement shall be considered in force for one year beginning _____ 19____, and will automatically be extended for succeeding years unless notice is given in writing by either party at least thirty days prior to end of contract year.

This Agreement shall provide:

1. Our representative will call before the beginning of the season, or upon completion of the installation and—
 - a. Lubricate bearings
 - b. Check for freon, oil and water leaks
 - c. Clean and adjust water valve
 - d. Check fan belt tension, condition and alignment
 - e. Check air and oil filters, and replace at beginning of season, if required.
 - f. Check unit for operating efficiency
 - g. Check oil supply
 - h. Check and adjust all controls
 - i. Check inlet and outlet air temperatures
 - j. Check operating pressures
2. During the operating season two calls will be made duplicating the operations noted above, except filters will not be replaced.
3. Emergency service on Airtemp units will be provided during normal business hours at no charge for labor.
4. We will perform the following special services on year-round installations: _____
5. We will perform these special operations on cooling towers or evaporative condensers: _____
6. All necessary parts for repair of Airtemp units will be provided at 15% discount from list to holders of Maintenance Agreement.
7. It is understood that service rendered by us shall at all times be prompt and efficient, but we shall not be held responsible for loss or damage caused directly or indirectly by such service, nor shall we be held responsible for delay or inability to perform the service caused by or resulting from strikes, lockouts, fires, accidents, war, riot, lack of material or any other cause beyond our control.

This contract is not valid unless the contract holder prohibits any person other than employees of Temperature Equipment Corporation or their authorized agents from rendering service or making adjustments or changes in the equipment.

Annual fee of \$ _____ payable in advance. This contract is effective only when both signatures are completed.

Signature of Airtemp owner _____

TEMPERATURE EQUIPMENT CORPORATION

Dated _____

By _____

Facsimile of service agreement entered into by Temperature Equipment Corp. and each purchaser of equipment.

sentative of Airtemp, that "they gotta see before they buy" and that good display is essential to success in the home heating and air conditioning field. For this reason the firm has an unusually large show room, with one side devoted to heating equipment and the other side to packaged air conditioning and large Airtemp radial compressors.

The showroom is immaculate and tastefully decorated with photographs of greater Cleveland. One Airtemp packaged air conditioner is used to cool the executive offices and showroom, and is also available as a "live" demonstrator.

For many weeks now Temperature Equipment Corp. has been "on the air" over Station WTAM (one of the largest in Cleveland) for five days a week from 8:45 a.m. until 9 o'clock. The program features light operatic music, the latest hits from musical comedies, and carries commercials that have been very carefully written for the sponsor.

Each Sunday large advertisements are scheduled in the Rotogravure section of the Cleveland Plain Dealer. According to Millsom both of these programs have contributed to making the firm well known, and have also resulted in many direct sales.

Up to the present time the company has retailed most of the packaged cooling equipment sold, including some 200 units that were installed this summer. At the same time an organization of heating dealers has been built up, to supplement the company's retail heating operation. Dealers who handle Airtemp heating, however, are becoming more and more interested in cooling and are constantly asking for quotations for this equipment on a wholesale basis.

Year-round heating and cooling systems have been handled by Temperature Equipment Corp. on a retail basis during this first year of operation. Twelve complete systems of this type have been sold, and Millsom reports that installations range from larger sized old homes to compact "built for living" modern structures.

He feels that this field has hardly been scratched and that the inherent potential in year-round residential systems is tremendous. Selling the whole job more than doubles your profit, Millsom states, and makes the customer happy.

Temperature Equipment Corp. has escaped many of the "growing pains" (Concluded on next page)

THOUGHTS FOR MERCHANTISERS



THE LONGEST WALK
A CUSTOMER
EVER TAKES!

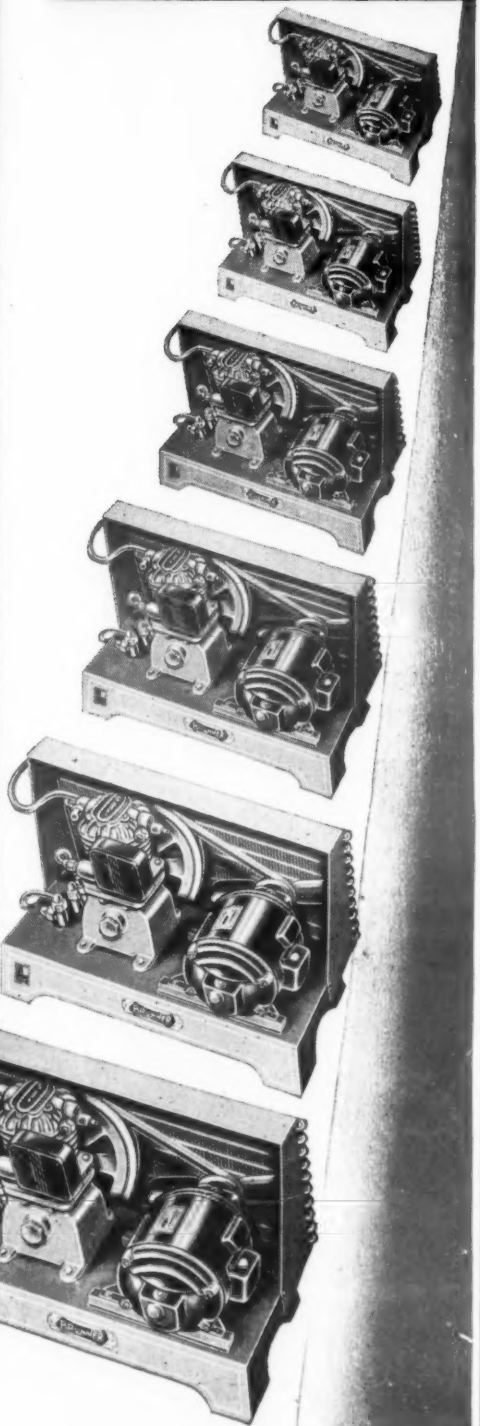
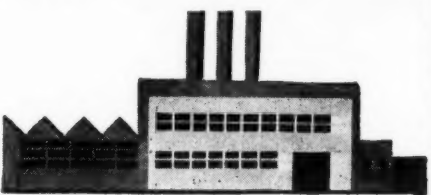
...when he walks off your booth dissatisfied, displeased and distressed. To make him a profitable customer again costs plenty, and the merchandising tragedy is that such costs can be avoided. A thoroughly dependable condensing unit is one of the surest steps you can take to safeguard good will, and protect your reputation for quality. And "BRUNNER" has always meant dependable condensing units. For many manufacturers BRUNNER is a three way investment in sales features—an investment in quality prestige, an investment in dependable service, and an investment in year 'round low maintenance cost.

BRUNNER MANUFACTURING CO.
Utica 1, New York, U. S. A.

AIR AND WATER COOLED MODELS
1/4 HP. TO 25 HP.

BRUNNER
SINCE 1906

BRUNNER
SINCE 1906
REFRIGERATION
helps you serve better



TRACE IS "very effective"
... SAYS MR. MANNING

KELMORE REFRIGERATION SERVICE, Inc.
Commercial Refrigeration and Air Conditioning
599 SPRINGFIELD AVENUE
NEWARK 3, NEW JERSEY

Oct. 20, 1947

Highside Chemicals Co.,
195 Verona Ave.,
Newark, N. J.

Gentlemen:

We have used your product TRACE over a considerable period of time and have found it very effective in locating hard-to-trace refrigerant leaks.

We are pleased to recommend this product wherever refrigerant leaks are suspected.

Very truly yours,
A. E. Manning
A. E. MANNING
Vice-President



HIGHSIDE CHEMICALS COMPANY
195 VERONA AVE.,
NEWARK 4, N. J.

ALSO MAKERS OF

THAWZONE
PATENTED
The PIONEER FLUID DEHYDRANT

Attending Firm's Sales, Service School



A typical group of dealers and salesmen who have been attending Temperature Equipment Corp.'s sales and service training school. Young lady in second row, right is radio continuity writer.

Training Center Aids Dealers, Salesmen

(Concluded from preceding page)

that characterize operations of this kind because of the enlistment of high grade personnel. E. K. Heglin as chief engineer, and Edward S. Hatfield, as service and installation manager, both came to the company after having had broad field experience with Airtemp. William D. Sterling is sales manager and William Sullivan is in charge of dealer sales. Seven retail salesmen are employed on cooling equipment and heating is marketed through some 20 odd dealers in the greater Cleveland area.

Service Contract Charges

On cooling equipment that is sold either at retail or through a dealer, Millsom has established a service policy that is proving to be extremely sound. No matter who sells the packaged cooling unit, the owner (or dealer) is charged \$50 for start up and test, \$35 for delivery in good order, and \$35 for one year's "Maintenance Agreement." This agreement, which becomes the property of the owner assures that service work will be done throughout the first year on a regular schedule, assures that the owner will be entirely satisfied and maintains relations with the owner that will result in the renewal of the service contract. Charges for these service agreements on central station systems, where radial compressors are installed, are considerably higher in cost but the principle is the same. In these cases owners are usually billed for service by the quarter, in advance. Certain service contracts of this character may run up to \$2,000 per year.

A firm believer in the constant training of personnel, both of his own and dealer organizations, Millsom has established a "school room" in the basement of the company building. This "training center" is in use several evenings each week and meetings are held covering every phase of the selling, installing, and servicing of Airtemp equipment. It is felt that this training activity will prove highly important in the ultimate development of the company. Every "school" held so far has been well attended and enthusiastically received.

A "parts department" in the basement of the building functions to serve the company's dealers with

tubing, valves, fittings, controls, and other items. Specialties like Anemostats are carried in stock, and sold to the trade throughout Cleveland.

Norge Will Replace Oldest Operating 'Vericold' Unit with New Refrigerator

DETROIT—In a search for the "granddaddy" of them all, the Norge division of Borg-Warner Corp. announced that it will exchange a brand new 1947 Norge refrigerator for the oldest refrigerator mechanism, produced by the company, that is still in operation.

The firm produced 110 refrigeration units in 1926, bearing the name "Vericold," and placed them on test in homes in Detroit and St. Louis. It is one of these the firm is seeking for historical purposes, and will replace the oldest of these that is still running with a current model. Public announcement of the quest, officials explained, was made necessary because records of ownership in that year have been lost or destroyed.

While these mechanisms would be 21 years old now, Howard E. Blood, president and founder of the line, is confident several will be found that are still in use. A substantial num-

ber of 1927 models, which bore the name Norge but are virtually identical to the 1926 units, continue in operation in private homes, he said.

Blood said that it seems likely that the unit will be found in the basement, with refrigerant tubings extending upward through the kitchen floor to the refrigerator cabinet. Most refrigerator units were made that way in 1926, he explained, although some might have been mounted in the cabinet base in recent years.

If the householder thinks he has such an "old timer," he may identify it by a name plate bearing the name "Vericold" which was fastened to the front of the steel base which contained the compressor-motor mechanism.

Persons possessing "Vericold" units may communicate with the company at its Detroit office. Serial numbers will be checked by Norge representatives.

Servicing Classes Offered by Lincoln, Neb. Public Schools

LINCOLN, Neb.—Classes in air conditioning and refrigeration service will be conducted this winter by the Lincoln public schools as evening courses for adults, according to L. H. Alberty, director of vocational education in the city schools.

The courses will be open to any one over 16 years of age who is not enrolled in day school and who is engaged full or part time in air conditioning and refrigeration work, or who wishes to get into that field.

Store Altered for Appliances

ALBANY, N. Y.—McCoy General Tire Co., 114-116 Central Ave., has opened a new home appliance department. Alterations have been made at the store to accommodate the new section.

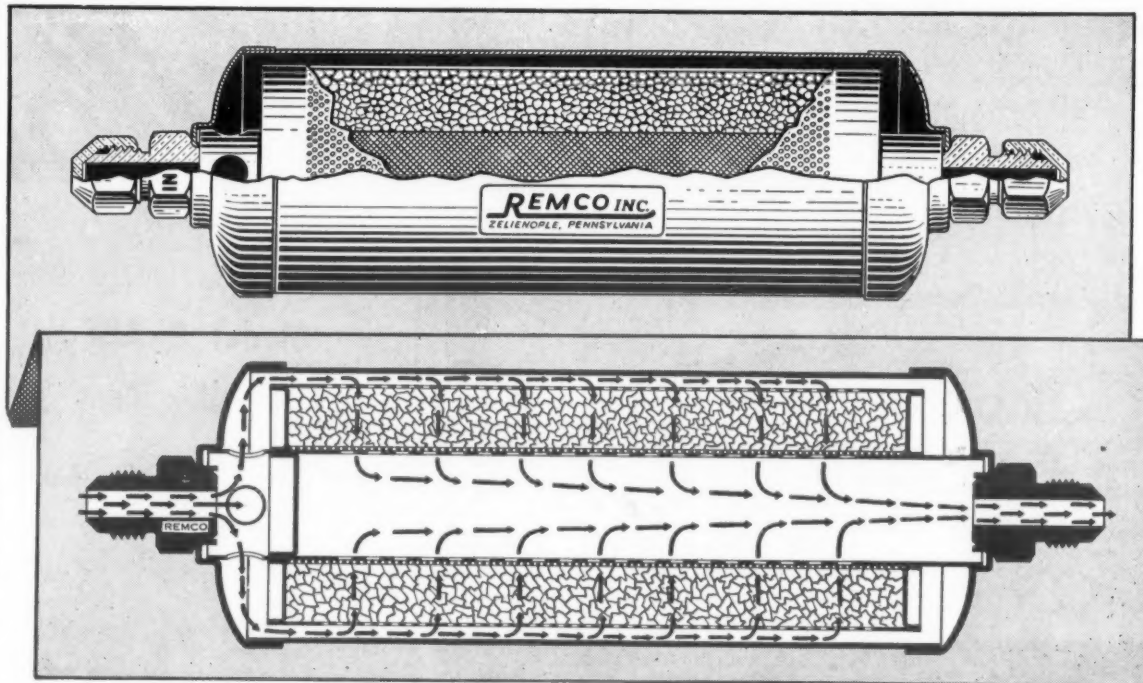
James F. McCoy, president of the firm, said the department handles refrigerators, radios and washing machines. Thomas Smith, veteran of 17 years experience in the electrical appliance field, is department manager.

WE STAND BEHIND OUR CLAIM THAT "Cross-Flo" DRIER-FILTERS POSITIVELY WILL NOT CLOG!

says Mr. Ken Newcum, president of REMCO, Inc.

"And No . . . I'm not sticking my neck 'way out when I say 'will not clog'. I know from the compliments and endorsements we've had from thousands of refrigeration men and service engineers that CROSS-FLO drier-filters will do all we claim for them. These same thousands have installed CROSS-FLO's on their large commercial jobs and, as a result, have changed their entire viewpoint on driers—they now agree that our exclusive new principle of flowing the refrigerant slowly ACROSS the thin cylindrical bed of drying agent, instead of forcing it through a long powder-clogged bed, has prompted an almost revolutionary new conception of drier operation.

"We stand behind our claim that these new drier-filters positively will not clog. That's why we say, 'You too should know about CROSS-FLO.'"



Look at the above diagram . . . follow those arrows . . . see the slow flow of the refrigerant ACROSS the thin cylindrical bed of drying agent and through the extra large, highly-efficient fine filter. You'll see the answer, in a nutshell, to "CROSS-FLO's" efficiency.

You owe it to yourself and to your future business to examine and try the new heavy-duty "CROSS-FLO." Go to your wholesaler now.

Carried in stock by leading wholesalers everywhere.

REMCO
INCORPORATED
ZELIENOPLE, PENNSYLVANIA

See and examine the new Heavy-Duty "CROSS-FLO" in Booth No. 425 at the Cleveland All-Industry Exposition.

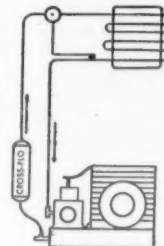
DRIERS • DRIER-FILTERS • FILTERS • HEAT-EXCHANGERS



WHERE DO YOU INSTALL YOUR DRIER-FILTERS?

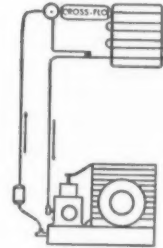
In the Liquid Line?

At this location the refrigerant is hottest and the drying agent least efficient. CROSS-FLO permits this installation because it positively eliminates pressure drop and clogging.



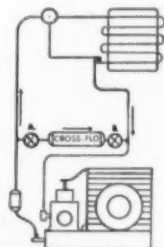
Between Refrigerant Control and Evaporator?

At this location the refrigerant temperature is lowest and the efficiency of the drier highest. CROSS-FLO is ideal for this location—use with a filter in the liquid line to keep out foreign matter.



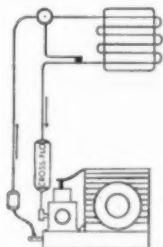
In By-Pass Between Liquid and Suction Line?

Open valve B all the way. Open valve A slightly and regulate it to keep frost line between drier and compressor. CROSS-FLO takes full advantage of low-temp refrigerant—becomes very efficient in this installation.



In the Suction Line?

Because of the exclusive CROSS-FLO design, REMCO Heavy-Duty may be installed in the suction line on all sizes, up to and including the size of connections on the drier, without pressure drop. And . . . CROSS-FLO may be left in the suction permanently.



For answer to these and other everyday refrigeration problems write for additional free information and literature. Request Circular 711-A, Remco, Inc., Zelienople, Pa.

greater resiliency

Jarrow...
Refrigerator Door Gaskets
Are Again Made From
Crude Rubber

Always Demand These
Quality Gaskets

JARROW PRODUCTS
420 N. LA SALLE ST., CHICAGO 10, ILLINOIS

THE NEW KEL-KOLD REFRIGERATION CONDENSING UNIT

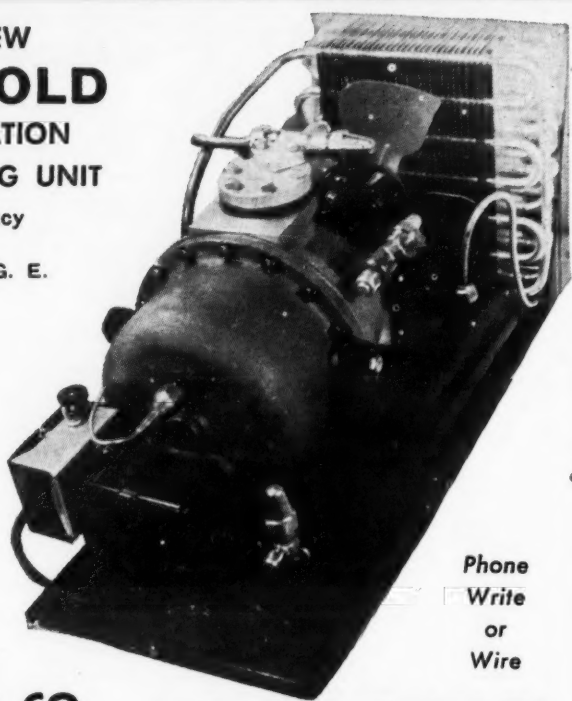
Direct Drive Efficiency
No Seal Trouble
EQUIPPED WITH G. E.
Hermetic Sealed
Motors

Deliveries
Immediate

DEALERS
DISTRIBUTORS
WANTED
PROTECTED
TERRITORY

1/4-1/3 HP. Sizes
High and Low Temp.

PERCHAN & CO. 1640 East 65th St., Cleveland, Ohio



Phone
Write
or
Wire

Many 'Firsts' Will Mark Exhibits Now Being Prepared for All-Industry Show

Penn To Inaugurate New Control Features

First and only line of pressure and temperature controls in the refrigeration field that incorporates a load carrying two-pole construction will be on exhibit at Penn Electric Switch Co.'s booth 1011 at the All-Industry Exposition.

That is the claim of the manufacturer, who adds that all models in this series—270—further incorporate a novel visible calibrated scale showing directly both cut-in and cut-out settings.

Also in exhibit in the Penn Electric space will be the Series 246 water valves, type 221 solenoids, type 842 humidistats, and types 873 and 875 cooling thermostats.

Company personnel on duty at the booth will be: M. E. Henning, R. H. Luscombe, K. W. Cash, C. B. Morgan, J. R. Netedu, F. W. Hottenroth, N. E. Jennison, J. E. Corbett, A. W. Barr, A. L. Rubel, R. V. Clark, W. W. Lige, L. D. Linehan, G. O. Sanders, O. G. Tinkey, J. G. Moravec, J. P. Bowen, H. D. Gray, E. M. Smith, and A. H. Hills.

Arcade's New Hardware Will Make Debut

Arcade hinges with short blades for use on reach-in refrigerator doors with narrow mullions will make their industry debut at the booth of the Arcade manufacturing division of the Rockwell Mfg. Co.

Sharing the limelight at booth 1216 will be a new Super Freezer Lock and Hinge, with seal breaker, for sharp freezing. This will be demonstrated to visitors.

Other Arcade products for both large and small cold storage plants will also be displayed. They include heavy-duty lockers and hinges for walk-in doors, hinges for vestibule doors, bumper bars, track door operators, and door closers.

Personnel from the home office who will be on hand will include A. J. Kerr, vice president in charge of sales for Rockwell, Mentor Wheat, Arcade sales and credit; and L. M. Bordner, Arcade sales manager.

Brewer-Titchener To Show Low Temperature Units

The new BTC food freezer, BTC store self-service frozen food display case with superstructure, and a variety of cross-flow evaporator plates will be exhibited at the Brewer-Titchener Corp. booth at the All-Industry Exposition.

Evaporator plates on display will illustrate the application of full-flooded plates to locker plants, food freezers, soda fountains, milk coolers, pressure coolers, and other equipment. They will include the newly designed cylindrical, U-type, L-type, and step-type applications, according to company officials.

F. A. Ellis, James Florance, James Cox, and C. H. Bean from the executive and engineering departments of the Binghamton plant will man the exhibits at booth 1020.

Bally To Demonstrate 3 Display Case Styles

Exhibiting for the first time in an All-Industry Refrigeration and Air Conditioning Exposition, the Bally Case & Cooler Co. will display three styles of display cases made by the company at booths 1105 and 1107.

They are an 8-ft. Series 36 double-duty case, an 8-ft. wall-type display case, and a 10-ft. endless type top display case.

Quality will be stressed on the double-duty case, which is the standard type with mezzanine shelf and roomy storage compartment, according to George M. Prince of the firm. The all-porcelain exterior, all-porcelain and stainless steel interior, three-glass front, and 4-in. insulation, will

be pointed out to visitors, he said. The wall-type case is made in a basic model that can be easily converted from a dairy case to a fruit and vegetable case. It is 66 in. high and 34 in. deep.

The endless type unit is designed especially for supermarket meat departments, Prince stated. Made in 8, 10, and 12-ft. models, it is available with or without ends, so additional units may be added at will. It measures 40 in. deep, 50 in. high, and has a 31-in. deep main shelf.

Sales Manager Leon Prince will act as host at the booth, while other Bally executives are expected to put in an appearance from time to time.

Stainless Steel Solenoids In Henry Valve Showing

One feature in the Henry Valve Co. booth (227) will be the entirely new dual and triple stainless steel solenoid valves and other stainless steel devices particularly adaptable to automatic beverage vending machines.

Also on display will be the concern's packless valves, pressure regulating valves, drier and strainer items (including combination assemblies such as sintered filter driers and combination dehydrator-strainers), and relief valves, check valves, and packed valves for ammonia. Many of these products were recently redesigned.

Bishop Co. Will Show Two New Products

Two new products, the Bishop frozen food display unit and the Bishop plastic shipping container for fresh and frozen foods, will be featured at the R. H. Bishop Co. booth during the All-Industry Exposition.

Also on display will be the Bishop food freezer with medial-octoplane freezing and the Bishop Air Mover propeller-type fan line.

The frozen food display unit, according to company officials, is intended for open display and merchandising and frozen foods and ice cream. It is equipped with mirror, light, sign canopy, and heavily insulated lid to close for night operation.

The new plastic container is claimed to be durable, light weight, perfectly sealed, and heavily insulated.

The 16-cu. ft. food freezer has a one-piece lid with counter-balanced hinges and solid cushioned seal. Its heavy insulation is hermetically sealed by welding, company officials claim.

In attendance at booth 112 will be R. H. Bishop, Charles B. Younger, Van C. Norman, and Newton Walker.

KOLD-HOLD Design opens the door to Refrigeration Profits



KOLD-HOLD "Quick Action" Serpentine Plates have a multitude of applications and combinations . . . all profitable to the user. Used separately, in banks, in plate stands, or as cabinet liners, they assure you the following advantages.

1. Easy installation.
2. Maximum prime surface.
3. No possibility of short circuiting the flow of refrigerant, which flows in one continuous pass from inlet to outlet.
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See us in Booths 411 and 413 at the All-Industry Show in Cleveland

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Model 3 ADF
30 Cubic Foot

Model 3 ADI Ice Cube Maker
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Model 2 FDF (Blower)
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With or Without Condensing Units

Gloekler REFRIGERATOR COMPANY

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What Some Manufacturers of Refrigeration Equipment Will Exhibit at All-Industry Show

Brunner To Describe Production Advances

In discussing the complete range of air and water-cooled condensing units (1/4 to 25 hp.) that Brunner Mfg. Co. will have on display in its three-booth space, representatives will emphasize new production equipment installed in the plant since the war.

According to Sales Promotion Manager O. R. McDonald, the new equipment "enables us to obtain even greater precision than on previous production." This in turn contributes to longer life and better service, he said.

A. G. Zumbrun, chairman of the board, heads a list of 23 members of the firm scheduled to attend the show. Among others on the list are:

George L. Brunner, Sr.; George L. Brunner, Jr., president; J. W. Thomas, general sales manager; Mr. McDonald; A. D. Sullivan, chief engineer; N. G. Crippin and E. R. Briggs, sales department; P. A. Karl, export manager; and H. S. Ormsbee, assistant export manager.

Eleven district managers and two sales representatives complete the list. The firm will occupy booths 304-6-8.

Palco Wool To Show Insulation Samples

Edric E. Brown, John H. Klass, Ray P. Klass, and Stanley H. Dickson of The Pacific Lumber Co., will be in booth 1208 to explain the merits of Palco Wool insulation, which is manufactured from the durable bark of the California Redwoods. Samples of the insulation will be exhibited.

Five New Water Coolers To Highlight Ebco Booth

Five new Oasis electric water coolers, special glass panel cutaway demonstrators, and operating models to supply visitors with cool water will highlight The Ebco Mfg. Co.'s layout in booths 203, 205, 303, and 305.

Among the new coolers to be unveiled for the first time is Ebco's Model OP-10W. This, the company reports, is the only water cooler with a water-cooled condenser especially designed for pulp and textile mills and those other applications where conditions make this type necessary. To prevent condensate from form-

ing and dripping into the cabinet, the stainless steel top is insulated on the under side. The compartment containing the condensing unit is sealed to preclude outside moisture penetration and is described as "the first enclosed cabinet to incorporate a fan to dissipate any air or moisture contained that might inadvertently leak into the cabinet."

Models with open-type condensing units will be shown in the bottle type and also pressure bubbler coolers for odd cycle and odd voltage a.c. operation as well as d.c. requirements.

Included in the exhibit will be the standard coolers with hermetically sealed units which, according to Ebco, have broken all sales records this year. These are the OB-4 bottle type and the OP-5, OP-10, and OP-20B pressure bubbler types.

The company will be stressing such improvements in design as a new self-cleaning pre-cooler, construction of the cooling unit tank, and finger baffles used on the interior, it was announced.

Hand-constructed cutaway demonstrators of Ebco's 10-gallon cooler will permit booth visitors to see how the units are built. Special lighting effects make the coolers' "insides" clearly visible.

Factory representatives in attendance will include L. C. Love, general sales manager; W. L. Winchester, assistant sales manager; and T. W. Giller and C. G. Fosnaught, sales engineers.

McIntire To Offer Aid On Moisture Problems

Anyone having a problem on the detection and elimination of moisture in mechanical refrigerating systems will get a sympathetic ear and possibly some helpful information at booth 611, belonging to the McIntire Connector Co. of Newark, N. J.

Company executives L. S. Dunn, H. A. Chandler, J. G. Beierlein, and G. D. Metzger will be there prepared to discuss the subject with all comers.

They will also be glad to point out the refrigeration driers, filters, and strainers made by their firm and demonstrate their DFN moisture indicator in connection with a new method of drying.

Also displayed will be representative units of the production of monel, brass, and copper screen fabrication for refrigeration compressors and liquid controls.

Color Translites Show Kold-Hold Applications

Before a background containing color translites of product installations, Kold-Hold Mfg. Co. will show a streamlined truck plate, a serpentine plate stand, a locker plate bank, and samples of special plates and evaporators.

The first three will serve to demonstrate results of Kold-Hold's new hydrogen oven brazing technique in

paint and metalized finishes.

It is also planned to have a truck plate connected to an operating compressor.

Kold-Hold's products will be explained by the regular sales force: E. A. Thiele, A. L. Golay, T. O. Lester, R. D. Spittler, H. C. Hoover, and J. C. Jackson. J. R. Tranter, president, and Mrs. L. S. Worthington, advertising manager, will also attend the show.

The firm's display will occupy booths 411 and 413.

Cordley & Hayes Models Have All-Sealed Systems

On display in the Cordley & Hayes space (401) will be the firm's new electric water coolers featuring completely sealed refrigeration systems.

Both bottle and bubbler types will be shown. The latter come with either air-cooled or water-cooled condensers.

The coolers are backed by an "unusual and unique" 5-year warranty to the user, according to James J. Booth, manager of advertising and sales promotion.

On hand will be C. M. Cordley, president; W. C. Moore, vice president; W. J. Mays, secretary and treasurer; C. A. Harris, national sales manager; J. L. Johnson, regional manager; and Mr. Booth.

Ansul To Exhibit Results of Field Research

Refrigeration engineers in particular will find it worthwhile to stop at the Ansul Chemical Co. space—booth 713.

There they will see a collection of solid materials taken from refrigeration equipment in the field. These

solids were formed by chemical reactions.

(For the past several years, Ansul has been analyzing sludges, oils, and solids found in refrigeration systems.)

Visitors will be able to discuss the collection and other matters with the following Ansul personnel:

H. V. Higley, F. J. Hood, L. C. McKesson, G. B. Vermilye, L. T. Plouff, E. M. Billings, William Rinelli, Dr. W. O. Walker, Clyde Broughton, R. C. McNeely, R. C. Hood, Dwight Hardie, Franklin Wedge, Kenneth Covert, Herb Dill, T. R. Kearney, Floyd Duvall, Ray Polley, and Robert Meuer. Other representatives will be on hand also.

Penn Brass Showing New Tube-Cutting Tool

As a companion to its Papco #400 tube flaring tool introduced at last year's exposition, Penn Brass & Copper Co. will this year present the Papco #500 tube cutting tool.

This compact, lightweight cut-off tool will accommodate sizes from 1/4 in. OD to and including 1 in. OD tubing, Penn reports.

The firm points out that a flat surface at the base of the tool provides a handy holding spot while adjusting the cutter roller, the burring fixture swings out of the way so that no sharp corners are exposed, and the burring tool will do a clean job without throwing a secondary burr.

Penn's line of tubing also will be promoted in booth 613, where visitors will find Jere H. Roach, president; Allen R. Roach, secretary and treasurer; R. K. Wilks, sales manager; and A. T. Anderson, purchasing agent.

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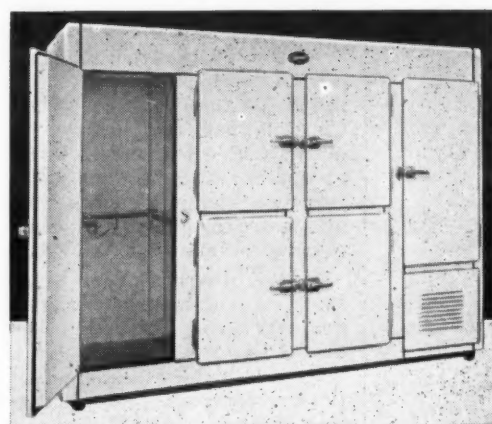
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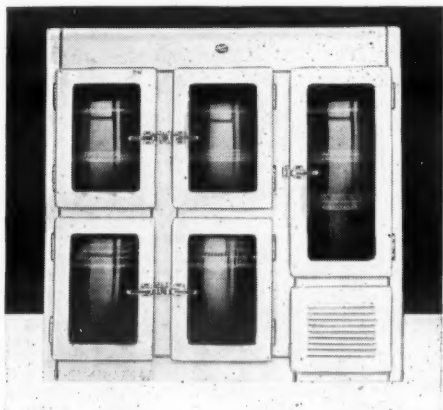
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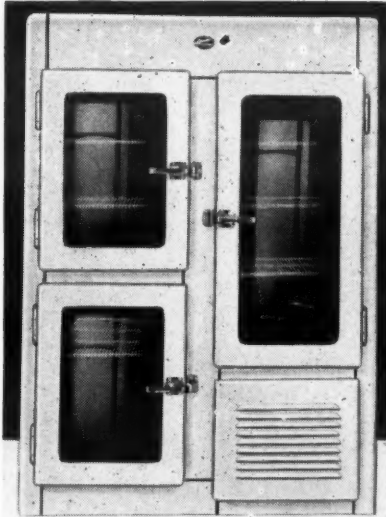
80M



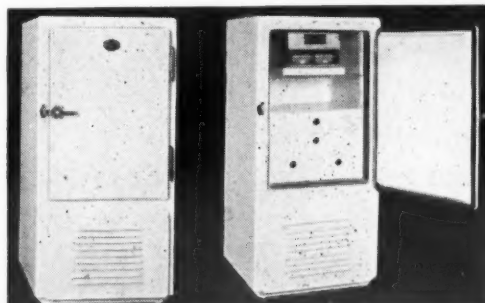
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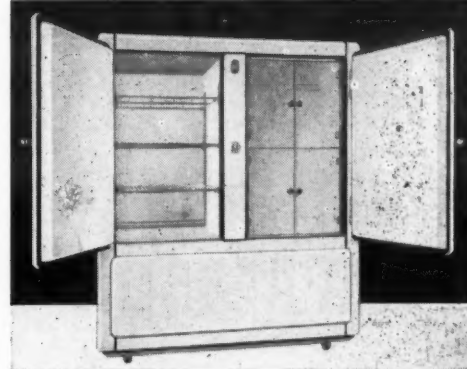
45F



40G



MODEL 4 1/2 BIOLOGICAL



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REACH-IN



1M-20

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Here's the new Loudon line of Reach-In Coolers in sizes from 20 cubic feet to 80 cubic feet to meet every need. Finished in baked Dulux on steel, all models have a Stainless Steel interior bottom and are available with either solid or glass doors, as preferred.

All models shown above are self-contained. For specification sheets and prices, write us today.

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... increases refrigeration plant capacity;
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Patented features: "duo-pass" coil keeps
condenser tubes free from scale; "oilout"
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ELKHART, INDIANA

The KEY to AIR CONDITIONING

One of a series from
by James J. LaSalvia

This is one of a series of articles prepared by a veteran air conditioning engineer which gives fundamental engineering data and practical application information on the subject of comfort air conditioning. Reading this series will give the dealer and salesman an excellent background for selling, laying out, and installing of air conditioning equipment.

Refrigeration Cycle (Cont.)

EVAPORATOR

The refrigerant enters the evaporator or cooling coil as a liquid and is changed to a gas by boiling. This boiling is caused by the warm air which wipes the outside of the evaporator and gives up its heat to the refrigerant.

In general, evaporator coils are made of copper tubing, with copper or aluminum fins pressed on the copper tubing. The refrigerant flows through the tubing. The tubing is staggered, which compels the air to flow in a wavy motion through the coil. This staggering gives the coil the highest heat transfer per unit of coil surface.

Evaporator coils are designated by

a number of rows (copper tubing) deep in the path of the airflow.

They are usually made as a unit in the following rows deep: one, two, three, four, six, eight, 10, and 12.

Normally on duct systems no coil less than four-row should be used if the percentage of latent work is as low as 10% or more of the total heat gain. The above coils may be used as a single unit, or may be combined in the path of the air stream to form any number of rows deep.

In comfort cooling it will not be necessary to use over eight rows deep.

An efficient evaporator should have a refrigerant distributor to distribute the refrigerant evenly over the whole surface of the coil. (See

Typical Evaporator

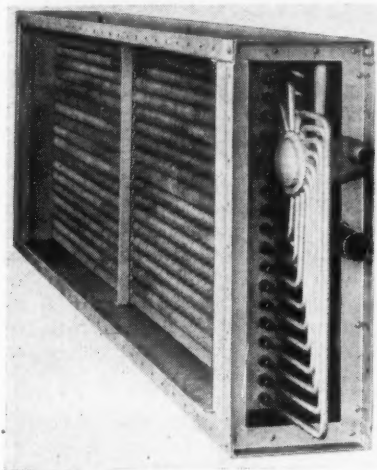


Fig. 5A—Note the refrigerant distributor in this Aerofin Corp. air conditioning coil.

Fig. 5A.) In this manner the transfer of heat between air and refrigerant is most efficient across the surface of the coil.

In installing the evaporator it must be placed so that the evaporator tubing which is connected to the distributing header, must be on the leaving air side. In this manner the air leaving the evaporator will pass the coldest tube last. The air will then leave the coil at the lowest possible temperature.

Each evaporator must be equipped with its individual expansion valve. Some larger evaporators may have one or more expansion valves, depending upon the number of coil circuits in the evaporator. Each coil circuit in this case must have its own expansion valve. Never use one expansion valve for any more than one coil circuit.

The evaporator in all cases should be selected as closely as possible to the load required.

If the evaporator selected is too large (compressor being selected properly) the evaporator will operate at a higher temperature than required and will cause the compressor to operate at a higher suction temperature and may not achieve what is required in both temperature and relative humidity in the space.

If the evaporator selected is too small (compressor being selected properly) the evaporator will operate at a lower temperature than required, which will cause the compressor to operate at a lower suction temperature. This will cause the compressor to deliver less load than required, as it is being held back by too small an evaporator.

EXPANSION VALVE

The expansion valve controls the amount of refrigerant which must enter the evaporator.

The expansion valve used in air conditioning work is known as the thermostatic expansion type. It operates automatically.

In general there are two main parts to the expansion valve:

1. Thermostatic power element assembly.

2. Valve body assembly.

The thermostatic power element assembly consists of the following parts:

- Remote thermal bulb.
- Capillary tube.
- Bellows.
- Spring.
- Equalizer tube.

The power element is charged with refrigerant gas at the place of manufacture and does not have to be refilled for the life of the valve.

The valve body assembly consists of the following parts:

- Operating bellows.
- Needle valve and seat.
- Inlet and outlet openings.

There is one point to consider in the operation of the expansion valve, and that is the superheat setting of the valve.

Superheat is the difference between the temperature of the refrigerant in the evaporator and the temperature of the refrigerant in the suction line immediately leaving the evaporator.

The expansion valve is generally set for between 6° and 10° superheat by the manufacturer. This means that the valve will strive to keep the temperature difference between the evaporator and the temperature in suction line leaving the evaporator within the superheat setting of the valve.

(To Be Continued)

Expansion Valve

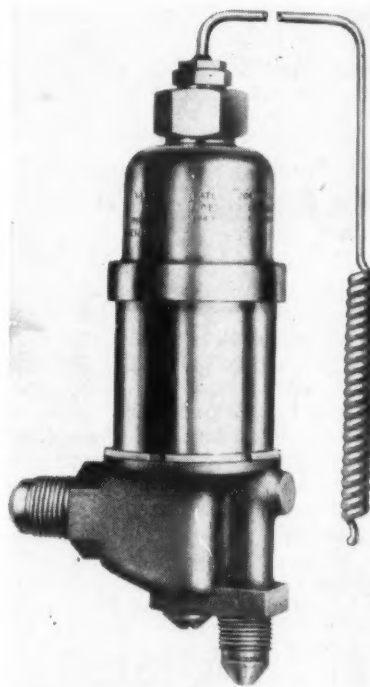
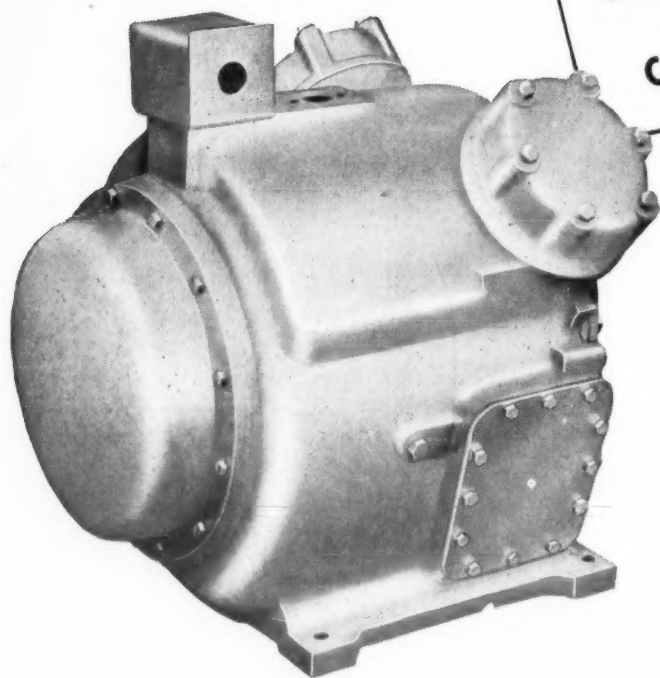


Fig. 6—Detroit Lubricator's 673 thermostatic expansion valve is typical of those used.

This NEW Hermetically-Sealed COMPRESSOR



Makes This
WORTHINGTON
AIR
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the Outstanding SELF-CONTAINED Unit

It's the most modern of its kind—completely new, designed throughout for quiet, vibrationless operation and field serviceability.

Motor and compressor are combined in one piece of equipment (eliminating belts, pulleys, fly wheels and couplings) and hermetically sealed against dirt and moisture. There are no shaft seals, and it is never necessary to oil the motor or make adjustments. When necessary, the equipment is readily accessible for servicing in the field.

Other features: dynamically balanced crankshaft, crankcase with removable cover, positive

displacement gear-type oil pump, large oil filters in the lubricating oil line, pistons equipped with four piston rings, removable cylinder liners, Worthington Feather* Valves, refrigerant-cooled cylinder walls and refrigerant-cooled motor.

Models are available now in 3-ton and 5-ton sizes.

Get ahead with Worthington's Self-Contained Air Conditioner—the air conditioner with all the new features, that's going out front in 1948. Worthington Pump and Machinery Corporation, Harrison, N. J. Specialists in air conditioning and refrigeration for more than 50 years.

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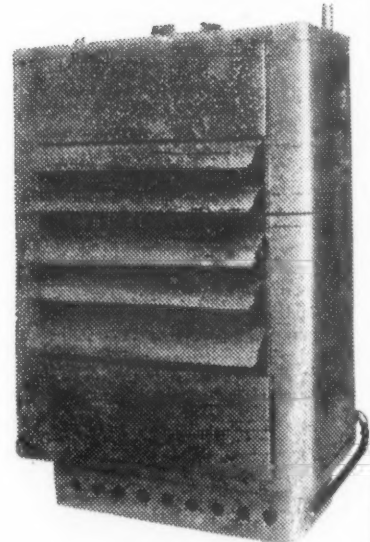
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Roses by the Package:**Pre-Packaged, Refrigerated Flowers Will Retain Qualities Without Being Placed In Water**

EAST LANSING, Mich. — Tests made at Michigan State College here are said to have proved that cut flowers stored in pre-packaged form in refrigerators have the same lasting qualities as those kept in water.

Erling Stromme, graduate student, who conducted the research under the direction of Prof. Paul R. Krone, extension specialist in floriculture, said the tests demonstrated that his packaging method could eliminate the practice of keeping cut flowers in water continuously while transferring them from wholesaler to retailer to consumer.

After permitting cut flowers to soak in water over night, Stromme packaged them in cellophane, heat-sealed the edges, and stored them at a 34 to 36° temperature for three to six days. When the flowers were taken from the packages and displayed in 65 to 80° temperature, they did not wilt, he reported.

Roses stored six days in cellophane lasted as long as those kept continuously in water, according to Stromme. Addition of a commercial preservative to the water only helped retain the color, he found.

Details on proper storage temperatures, containers and linings, sealing, overwrapping material, addition of carbon dioxide to containers, and pre-soaking are contained in a progress report prepared by Prof. Krone.

Those temperatures customarily used for the keeping of each particu-

lar kind of flower seem best, Prof. Krone said.

"Temperatures between 40 and 50° have been very satisfactory on most things," he wrote. "Gladys will open better if not stored at too low a temperature and carnations seem to prefer one of about 50°."

"Preliminary trials indicate that for one or two-day periods, packaged flowers may be kept quite satisfactorily without refrigeration at room temperatures of 70 to 75°."

It should be remembered, Prof. Krone stressed, that packaged flowers will not normally keep longer after they are removed from the package than similar flowers kept in water at the same temperature during the storage period.

"Properly packaged roses will stay in tighter bud in the package in the refrigerator than they will in water at the same temperature," he reported, "but their total period of usefulness after they are cut from the plant will not be much greater. Flowers that are kept in storage for a week or 10 days will rapidly deteriorate after removal regardless of whether they have been in water or in a package."

It is essential, Prof. Krone emphasized, that an absolutely moisture-proof container be used. He said virtually none of the standard flower boxes possess this quality at present.

"The cardboard used in them acts as a blotter absorbing the moisture

that is given off by the flowers and causing wilting," it was pointed out. Tissue paper should not be used, he added, for the same reason.

"Our observations would indicate that even those boxes packed for delivery within six or eight hours would be better lined with moisture-proof cellophane," the report continued. "The flowers should be misted lightly to add some additional moisture."

"Noting that various linings laminated into the inside of the box have been tried, the floriculturist said aluminum foil, cellophane, and very heavily waxed paper proved best.

"We have used several types of material for sealing boxes in an effort to get away from the necessity of overwrapping with cellophane," the report stated. "It would seem, however, that the cost of sealing tapes and labor would be just about

as great as that involved in overwrapping the entire box, which results in a more attractive package."

Whether it is more desirable to add carbon dioxide to the container to reduce the transpiration rate is still open for discussion, according to the report.

"Our work would not indicate that the results obtained would offset the cost and bother on most flowers," the report declared. "In some instances, roses have retained their color a little longer when it was used."

"If carbon dioxide is used, it can be incorporated into the package in the form of dry ice. Only a small amount is needed. A piece weighing four grams will increase the concentration in a box 4" x 6" x 24" to approximately 15%, which is the maximum that should be used."

The material to be used for overwrapping must be moistureproof and it should be heat sealing for ease of operation, Prof. Krone advised. He found du Pont's 300 MSAT 87 and 450 MSAT 86 and Sylvania's 300 PMBS to be entirely satisfactory.

The tests indicated that most flowers should be soaked up in water for about six hours before packing, he said.

'48 Annual Midwest Power Conference Date and Place Set

CHICAGO—The tenth annual Midwest Power Conference will be held April 7-9, 1948, in the Sheraton hotel here, the Illinois Institute of Technology, its sponsor, has announced.

Stanton E. Winston, director of the institute's evening division, will again be director of the conference.

Cooperating organizations are:

The Illinois chapter of the American Society of Heating & Ventilating Engineers, the Illinois section of the American Society of Civil Engineers, the Western Society of Engineers, the Engineers' Society of Milwaukee.

The Chicago sections of the American Institute of Chemical Engineers, American Institute of Electrical Engineers, American Institute of Mining & Metallurgical Engineers, and American Society of Mechanical Engineers.

Iowa State, Michigan State, Northwestern, Purdue, Iowa, Illinois, Michigan, Minnesota, and Wisconsin.



GET the facts about the completely new and revolutionary method of fireproof refrigeration construction developed by Gold Bond engineers. Zerocel installed with metal lath, channels, and Portland cement plaster replaces old-style construction methods using board forms of insulation... provides walls and ceilings that won't fall down. Finish is better looking. Inside condensation is eliminated. You get greater efficiency and permanence at big savings over outdated methods!



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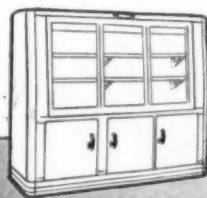
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Top Display Cases
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Dairy Wall Cases

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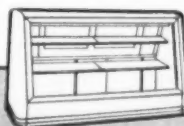


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These Ansul Refrigerants have a long record for DRYNESS, PURITY and DEPENDABILITY. You will like Ansul's friendly service.

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New Wrinkles Developed by Enterprising Service Firm Improve Work & Finances

Milwaukee Contractor Has Mobile Telephone, Extensive Shop; Spurs Service Collections

By C. Dale Mericle

MILWAUKEE — Started during the war years, Arctic Refrigeration Co. has been developed into one of the major service contracting and commercial refrigeration firms here by its enterprising chief, Harold Berghauer.

A man who hates to take "no" for an answer and who likewise hates to say "no" to a customer, Berghauer built up the business in part at least by repairing machines in wartime when replacement parts were all-too-often not available.

"If we couldn't get a part, we'd turn out a replacement in our shop," he recalls.

The shop, which is fairly complete, is supervised by August Henneke, veteran machinist and repairman and partner in the firm, who was new to refrigeration when he joined up in the business about four years ago.

Obtaining replacement parts is not so difficult now as during the war, and this, combined with the fact that labor costs are at extremely high levels, has curtailed much of this replacement part "manufacture," but the shop still plays a most important role in the firm's operations.

A new "angle" that Berghauer has been featuring recently is the Mobile Telephone system set up in the serv-

ice truck and one of the service cars. As described in the Oct. 6 issue of the NEWS, having telephones in the truck and car has helped clinch sales and greatly increased the number of service calls that can be made in a day, as well as speeding up response to service calls.

Service on both commercial and household refrigerators combined with "engineered" commercial installations where packaged equipment was not practical or not available have been the mainstays of this company's business.

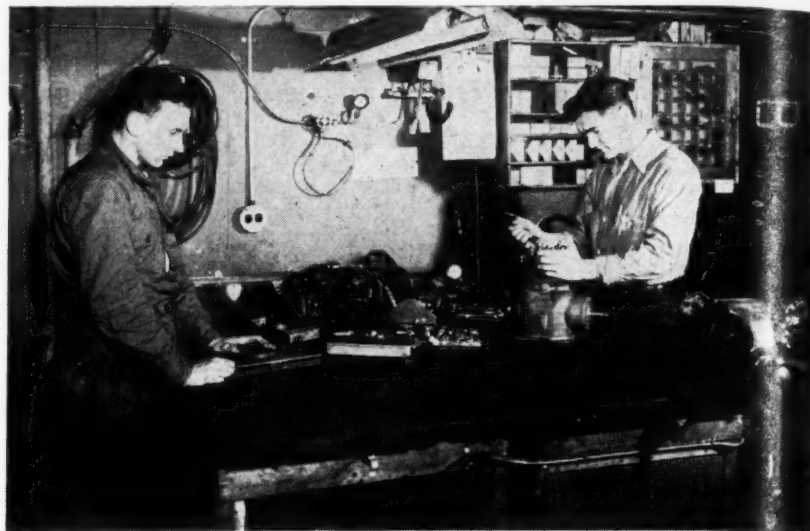
Now, however, Mr. Berghauer wants to do more package equipment installations "to save labor costs," he explains. Recently he took on the complete Weber commercial line and is eyeing a couple franchises in the household appliance field.

At present two salesmen are employed, one working the outlying areas around Milwaukee, the other concentrating on prospects in the city. As the selling end of the business expands, though, Berghauer hopes to add more men to the sales force.

Among the men now on the company's payroll is a veteran carpenter.

"This man is a great help in installation work and can save us a

Production Line for Repairs Possible Here



Because of the excellent arrangement of Arctic Refrigeration Co.'s shop facilities, it is possible to handle the compressor-rebuilding operations on a virtual production-line basis. Here Frank Gorman (left) laps a valve plate while Robert Jung tightens the head of a compressor which has been rebuilt.

lot of time," explains Berghauer. "He is familiar with the construction of buildings and can advise where to cut into walls for installing wiring, or refrigerant lines, for example."

Another instance was cited where the carpenter helped on the delivery and installation of a 16-cu. ft. freezer. This had to go in the basement of the house, but it proved too large to go through the doorway and down the basement stairs.

"I knew that if we couldn't get the box into the basement we'd lose the sale," said Berghauer.

The carpenter, however, helped solve the problem. The door was removed and some of the basement steps taken out. Then a hydraulic jack was borrowed from a garage. Placed on its end, the freezer was lowered into the basement by means of the jack and blocks, after which the carpenter replaced the steps and door.

Counting the carpenter, six men are employed on installation and service work. The latter is now divided about 50-50 between commercial and household jobs, but during the war years commercial servicing accounted for about 60% of the firm's service operations.

Household servicing is not too profitable, but it does keep the men busy, pointed out Berghauer, who

adds that his present aims are to make commercial installations a year-round business.

Often on service calls made in the summer, Arctic's servicemen will spot some defect that will probably require repair or replacement within a few months.

They point out this defect to the customer who may decide to have it fixed immediately, but often prefers to wait a few months until winter.

"This way we're pretty certain of getting that job in the winter. If we waited until we called on that customer during the winter to suggest that particular repair job, he'd think we were merely trying to create work and would probably turn us down," points out Berghauer.

In promoting its service business the firm emphasizes its high quality workmanship. In line with this, its men are forbidden to take apart a compressor, motor, or valve (except to clean the screen if it's a valve) on the job.

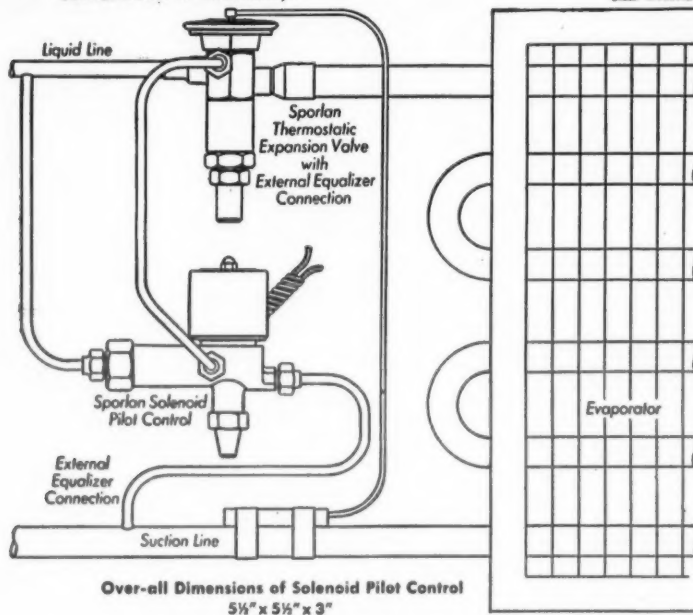
"They can't do a decent job out in the field," Berghauer asserts. "For one thing, the lighting is usually poor and they can't see well enough under these conditions to do the job properly. Also they may lose small screws or springs."

(Concluded on next page)

Save Money 3 Ways

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Two wire control is used...

The expansion valves will be open when the pilot coil is energized and closed when de-energized in exactly the same manner as the conventional solenoid valve. When de-energized the leak from high to low side also stops. The pilot control may be applied to existing jobs merely by connecting with 1/4" copper tubing and completing electrical connections.

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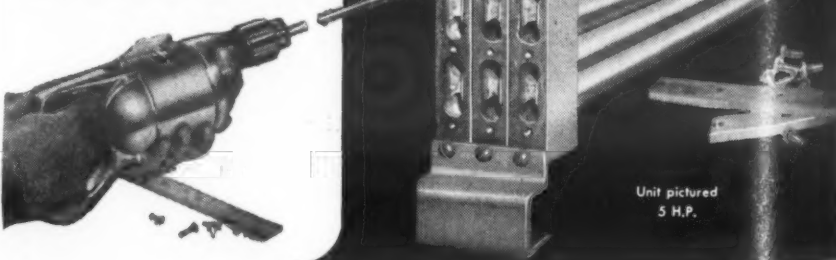
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Machine Speeds Resurfacing Operations



A surface grinder equipped with a magnetic chuck can handle numerous operations in the Arctic shop. This close-up shows a compressor valve plate about two-thirds the way through the first "cut."

Call-backs Cut--

(Concluded from preceding page)

"By bringing such major repair jobs into the shop, we also cut down on call-backs because we can do the job correctly in the shop where we have all the facilities."

Sometimes in jobs where it is necessary to bring a compressor or motor and complete condensing unit into the shop for repairs, a loaner is installed. Usually, however, this is not necessary. The temperature of the fixture is pulled down before the pump, say, is removed, and the pump is then taken to the shop where it can be quickly repaired and re-installed the same day.

Except on complete new installations, Arctic Refrigeration tries to avoid quoting an installed price for replacement equipment. When a serviceman comes into a place to install a new or rebuilt motor he may find that he'll have to replace much of the wiring, or lines in the case of a compressor.

"This naturally runs up the cost of the job, and if we've quoted an installed price for the motor or pump alone, we may discover that we're losing money," says Berghauer.

Reconditioned parts installed by Arctic carry a one-year guarantee. This applies only to the materials, but a 90-day free labor guarantee is offered. Both of these warranties are offered chiefly as a customer goodwill builder.

Where parts are installed in a dirty system, however, the firm refuses to make any guarantee.

Servicemen, incidentally, used to be paid a 5% commission on parts sold and another 5% on collections. This incentive system, has recently been changed, however, to spur collections.

Servicemen are now paid a full 10% on total collections made during the day provided they collect on all of the calls. If their collections fall short of 100%, they receive only 5% of the total.

"This plan is making excellent collectors of our servicemen and saves us a lot of money and bother," states Berghauer. "Often if a man fails to collect during the day he'll go back at night and get the money, for just one failure makes a difference of 5% in commissions to him."

Since the men's commissions are based on the over-all collections and this includes sales of parts to customers, the firm keeps a very close check on this activity of the servicemen. They are required to bring in the defective part whenever they sell a replacement.

The part is then carefully examined in the shop to make sure that it is really defective.

"If the parts are okay, it's just too bad for the serviceman," says Berghauer. "We don't want anyone forcing things onto customers. Under this setup some of the servicemen sometimes bring a part into the shop for inspection before they'll sell a replacement."

In addition to these commissions on collections, bonuses on deliveries and pick-ups are paid to the servicemen, who also get \$1 when they send a household box into the shop.

August Henneke (left), and Harold Berghauer (center), partners who operate Arctic Refrigeration Co. in Milwaukee, discuss some practical problems with P. B. Reed, author of the "Refrigeration Problems" series which appears weekly in the NEWS, and manager of Perfex Corp.'s refrigeration and air conditioning division.



Claim Elimination of 'Rusty Water' Problem

PITTSBURGH—Rusty water—and the damage and discoloration it can cause in washing clothing—have been eliminated at the "Lauderette," a self-service laundry at 2008 E. Carson St. here, according to Miss Bertha Lou Draper, manager.

A small tank-type device, installed in January this year following complaints from customers that their clothing was being damaged by "rusty water," feeds the rust-inhibiting material "Micromet" into the hot water at the tank, so that the water is free of color and rust when it enters the battery of 21 automatic washers in the main room.

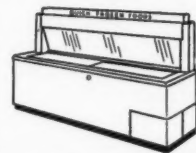
The Micromet supply dissolves slowly, at the rate of 25% per month, so that keeping it replenished involves nothing more than opening the feeder top each month, and pouring in the white crystalline substance—one-quarter the amount contained by the feeder when first installed.

The use of Micromet at this self-service laundry is said by representatives of the manufacturer, Calgon, Inc., to be the first of its kind, although the material is a modified form of Calgon, a water-normalizing agent widely used in municipal, industrial, commercial, and domestic water treatment.

Addition of Micromet to the hot water supply, Miss Draper reported, has cut down the precipitation of film or sludge on working parts of the washers so that clean-up is easier and quicker, and has eliminated housewives' complaints of "yellow" stains on clothing.



DC-12-1: 12½ Cu. Ft. Storage Length, 76"; Width, 28"; Height: Cabinet, 33½"; Overall, 61". Motor 110-120 V.; Compressor, ½ hp.



DC-23-1: 23 Cu. Ft. Storage Length, 121"; Width, 28"; Height: Cabinet, 33½"; Overall, 61". Motor 220 V.; Compressor, ½ hp.



DC-18-1: 18 Cu. Ft. Storage Length, 98½"; Width, 28"; Height: Cabinet, 33½"; Overall, 61". Motor 110-120 V.; Compressor, ½ hp.

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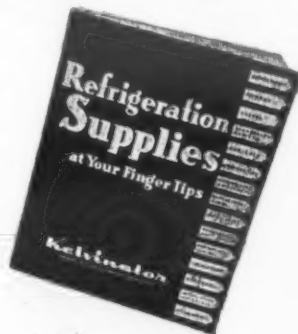
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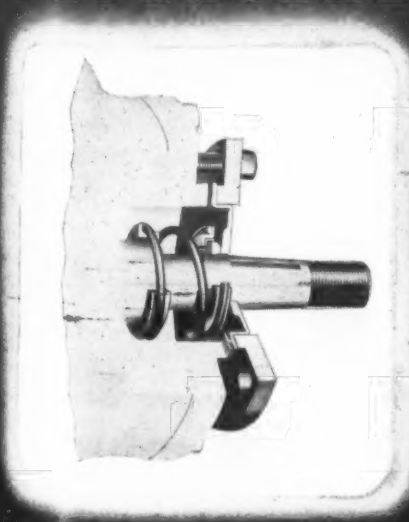
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The 'Right' and 'Wrong' Way of Applying Ultra-Violet Lamps In Refrigerated Areas

DETROIT—"Unless sufficient ultra violet lamps are installed to do the bacteria killing job that is expected of them, it is better not to install any at all," Hugh Archer of the Detroit Edison Co.'s research department told members of the Refrigeration Contractors Association of Detroit recently.

"Putting in one lamp where six are needed is worse than putting in none at all because you will have a dissatisfied customer when he finds that the lamp is not living up to his expectations.

"An adequate installation means a satisfied customer, even though it may cost him more money than he had expected to pay," Mr. Archer said.

Mr. Archer's talk headed a program that included a Westinghouse cartoon movie on germicidal lamps called "The Bugaboo of Bugville," and a series of slides showing the variety of uses to which ultra violet lamps are being put locally.

John L. Fuller, of Ster-L-Ray Sales & Service Co., Westinghouse Sterilamp distributor here, exhibited the movie and Robert E. Bandfield, of the Edison Co.'s lighting division presented the slides.

Mr. Archer described the ultra violet ray lamps, pointed out their possible harmful effects to persons working around them, and indicated various uses for them.

"Ultra violet radiation hot cathode

lamps are identical with fluorescent lamps except that they are made of a special ultra violet transmitting glass and they do not contain the fluorescent powder," he explained.

"The lamp consists of an evacuated tube with an electrode on each end and a drop of mercury inside," he said.

"The lamp operates at a peak of 2,537 angstrom units, a very short wave length that is sufficient to kill bacteria," he continued. "The peak for killing bacteria is 2,650 angstrom units."

Kill Surface Bacteria

Mr. Archer explained that the ultra violet ray lamps can only be used to kill surface bacteria or bacteria in the air. They do not penetrate into substances.

For instance, he said, the ultra-violet ray lamp will sterilize the surface of a glass. But if there is lipstick on the glass, the rays will kill the germs on the surface of the lipstick, but not those on the glass beneath it.

Or, in the case of sterilizing beef carcasses in a packing house, the lamps will help prevent surface slime from forming, but it will not kill bacteria within the meat itself.

Answering a query from the audience, Mr. Archer emphatically denied that ultra violet rays turn meat gray. "Meat has been turning gray since the days of the ancient

Assyrians. We don't know why it turns gray yet, but ultra violet radiation doesn't do it."

Persons working around ultra violet lamps should not expose themselves to the direct rays for long periods, Mr. Archer warned. Exposure to direct rays can give a person a "sunburn." The rays will not tan, he said.

Looking at the light for any length of time can cause a form of conjunctivitis, or "pink eye," he stated.

Problem of 'Pink Eye'

Neither of these conditions are harmful, he emphasized, but are very uncomfortable to the person exposed. A person who contracts "pink eye" will feel as though he had sand in his eyes.

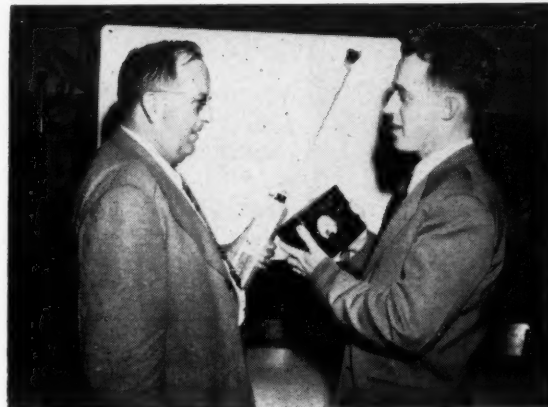
"Pink eye" usually attacks during the night and keeps the afflicted person awake for several hours. The next day he will look as though he had been on an all night binge, Mr. Archer declared.

Both of these conditions can be avoided by taking the proper precautions, he explained.

He exhibited a measuring device which he developed for the Edison Co. to use in its research on ultra violet to determine the intensity of the light at various distances.

By holding the device at the spot where the person will be working, a dial on the instrument will show

Tester Determines Ultra-Violet Intensity



Trafton T. Loveland (left), Ster-L-Ray Sales & Service Co., Detroit, discusses with Hugh M. Archer of Detroit Edison Co. (right) the tester that Mr. Archer developed to determine the intensity of ultra-violet radiation from lamps.

how many hours he can be safely exposed to the ultra violet rays at that spot.

Protection from the direct rays is provided by lamp shields that keep the rays from shining into the area where persons are working.

To prevent "pink eye" one can avoid looking directly at the light or he can wear goggles, Mr. Archer said. Ultra violet rays will not penetrate ordinary glass. It will penetrate quartz spectacles, though, he warned.

Another effective method especially applicable to reach-in or walk-in refrigerators, according to a contractor in the audience, is to arrange the light switch so that the ultra-violet lamp will turn off when the door is opened and will turn on again after the door is closed.

Among the uses of ultra violet ray lamps is the control of fungus and surface bacteria, Mr. Archer said. "New applications are turning up every day," he stated. "Just recently we used an ultra violet lamp to kill the growth of mold on moulded cardboard automobile parts."

At Low Temperatures

Asked about the efficiency of the lamps at lower temperatures, Mr. Archer pointed out that the lamps' efficiency goes down as the temperature drops.

The lamps operate best at a wall temperature of 120° F., he said. Wall temperature is the temperature of the surface of the lamp and not the room temperature, he pointed out. "At a wall temperature of 60° F., the lamps' efficiency drops 50% and the light will begin to flicker. At 30° F. wall temperature, the lamp will go out entirely," he asserted.

As it is the vaporized mercury

that causes the ultra violet radiations, the temperature has to remain above the point of evaporation, he noted.

In this connection, the lamps should also be kept out of forced drafts, as from a blower in a walk-in cooler, he pointed out. Mr. Bandfield stated that a cigarette lighter made a good draft tester. "Run the lighter flame along the length of the lamp," he said, "and if it is blown out, there is too much draft."

Mr. Archer declared that when the ultra violet ray lamps are new, and for about the first 100 hours of operation, they will add ozone to the air and will provide a certain amount of odor control.

But after that length of time, they lose their ability to produce ozone and will have no effect on odors. (He pointed out that the lamps are not designed to control odors.)

Lamp Life 4,000 Hours

The lamps' efficiency will gradually decrease throughout the length of their life. But they are effective for 4,000 hours, operated in room temperature, he declared.

Cold cathode type lamps are now made serviceable for 8,000 hours.

Mr. Archer and Mr. Bandfield, who advises on installation work, when asked about a formula to determine the number of lamps needed to do a job, declined to give any rule of thumb.

Mr. Bandfield pointed out that there are so many factors to take into consideration that it would be impossible to prescribe without seeing the job. Roughly, however, one lamp would be needed for every 50 sq. ft. of space, he said.

The use of ultra violet lamps in the home is still a matter of question, Mr. Archer said. Just what their effects are, he declared, has not been determined.

He admitted that he does have an ultra violet lamp in his children's room. In the past, he said, the children would pass a cold along from one to the other. By the time the third was over it, the first had passed her immunity period and was susceptible again.

After the ultra violet lamp was installed however, the first child caught a cold and passed it on to the second, who got a mild case. The third child did not pick it up at all.

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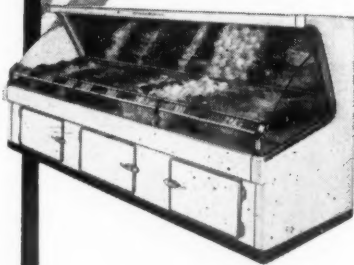
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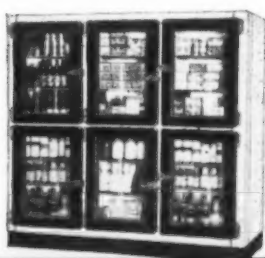
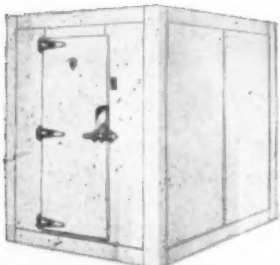
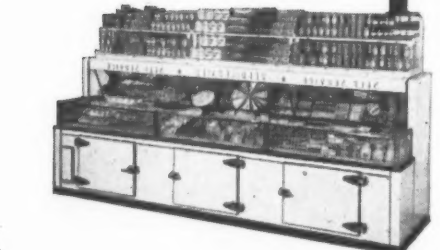
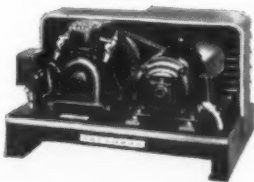
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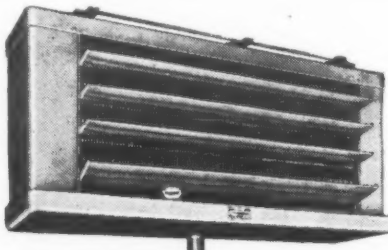


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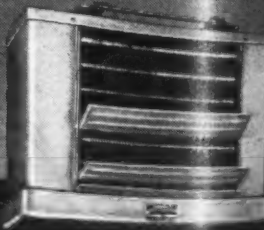
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Open door shows the capacious interior of this refrigerated salad counter, readily accessible to busy chefs.

Salads, Made Early, Are Stored In Reach-In Until Rush Hour, Freeing Chefs' Hands for Other Jobs

NEW ORLEANS—A specially designed 15 ft. stainless steel refrigerated salad counter was recently installed in the kitchen of International House here, noted international business club.

The counter was designed by club and building manager Thomas Bradshaw. It consists of 10 compartments (in two rows of five compartments each) for the storage of salads and desserts, a sink and table counter, and a cold Bain Marie, or refrigerated water bath.

Bradshaw said that the counter was working out very satisfactorily. "With this salad counter, we can make up our salads and desserts ahead of time and keep them crisp, fresh, and cool for long periods," he explained.

He remarked that service in the dining room, which seats 160 guests, had been noticeably speeded up because of the counter. Salad and dessert orders can be filled quickly and without delay. This eases work in the kitchen at peak hours by permitting hands that would be preparing salads to devote themselves to other duties.

No ice is used in the unit, Bradshaw asserted, and all juices and melons are cooled entirely by me-

chanical refrigeration. The cold bath, he said, permits the preparation of crisp, cool salads, while the refrigerated storage compartments insure a fresh, just-prepared taste when they are served.

The kitchen is also equipped with a 1,600 cu. ft. walk-in cooler, a cook's cooler, and a 22 in. by 16 in. pastry box.

Besides the main dining room, the kitchen serves four private dining rooms and a daily smorgasbord luncheon table on the mezzanine which accommodates 40 more guests.

International House has become internationally famous for its creole dishes prepared and served under the direction of French-born head chef Edmond Lendresse, according to Bradshaw.

International House, he explained, is a Mississippi Valley organization dedicated to world trade, peace, and understanding. It has aided both American and foreign businessmen to establish more than 7,000 trade contacts in its two years of existence.

It aims to introduce Valley manufacturers to foreign trade and help them develop business there. It has assisted large numbers of foreign businessmen arriving in New Orleans to buy and sell commodities.

Johnston Refrigeration Construction Names Jack M. Baragar, 3 Others to Key Positions



(Above, left) Ehlers, new service manager. (Above, right) Watson, head of new service sales department. (Far right) Baragar, new manager of operations.

DETROIT—Four appointments and the creation of a new department in the Johnston Refrigeration Construction organization here has been announced by George L. Johnston, president.

Jack M. Baragar has been appointed manager of operations and will supervise the work of all departments. In his 15 years in the industry, Baragar has served as field engineer for Universal Cooler Corp. and as service manager for Iceberg Refrigerated Locker Systems, Inc.

E. A. Ehlers has been named service manager, covering both domestic and commercial service. R. P. Leveque, who has been with the firm since its inception 10 years ago, will be superintendent of the installation department.

The new department, that of service sales, will be headed by M. J. Watson, who has spent 22 years in the industry and 15 of them with Kelvinator Corp. His task will be to remain in constant contact with all commercial and dealer accounts.

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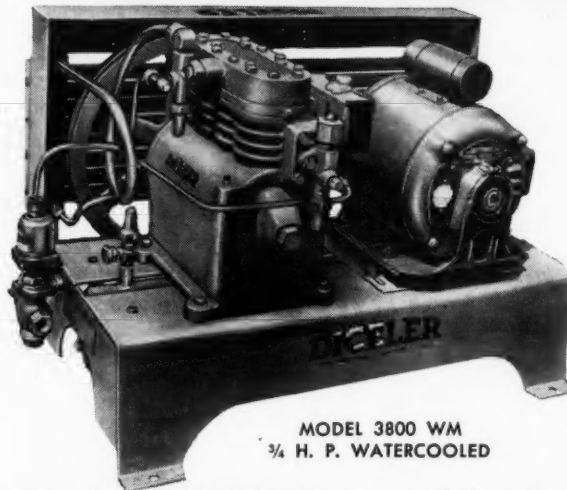
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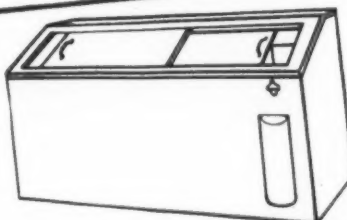
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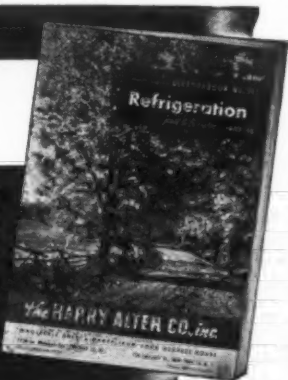
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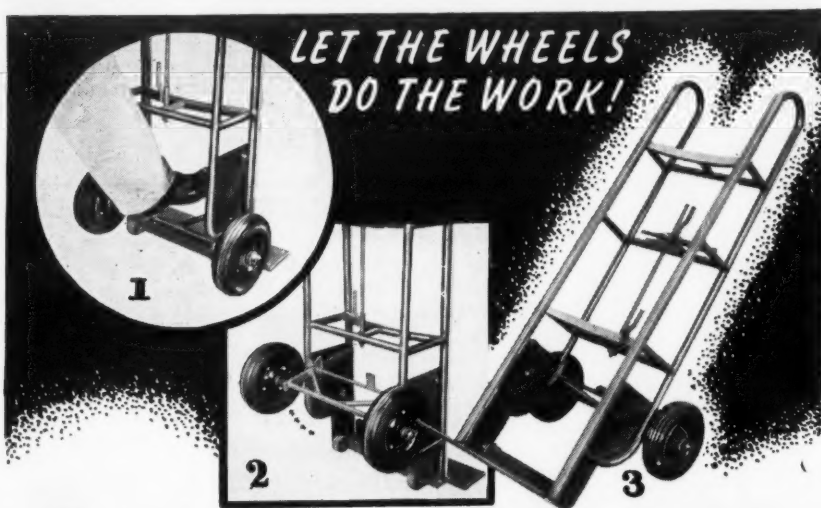
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Refrigeration Problems And Their Solution

By P. B. Reed

For Service and Installation Engineers



Manager, Refrigeration
and Air Conditioning
Division, Perfex Corp.

The Oil Cycle (9)

EFFECT OF OIL IN THE EVAPORATOR

As we have previously found in this series (1) oil in the refrigerant in the evaporator acts as an insulant and cuts down the rate at which the refrigerant absorbs heat from the evaporator, and (2) the presence of oil in the refrigerant raises the boiling point of the refrigerant and thus reduces the temperature difference between the refrigerant and evaporator and the air to be cooled and consequently reduces the capacity of the evaporator at the temperature to be maintained.

As a result, the compressor is forced to operate at a lower suction pressure in order to operate the evaporator colder. This reduces the compressor capacity and efficiency and increases the cost of operation.

In order to assure adequate oil return, the tubing in the evaporator must be small enough to give the necessary velocity of the vapor. On the other hand it must be large enough to prevent excessive pressure drop.

The temperature of the evaporator

will have some effect on how much pressure drop can be permitted, for loss of compressor capacity due to lower suction pressures, resulting from excessive pressure drop, is much greater at low evaporator temperatures and suction pressures than at the higher evaporator temperatures and suction pressures.

VELOCITY OF GAS, AND PRESSURE DROP

Pressure drops up to 2 p.s.i. across a 40° evaporator on an air conditioning installation could be permitted while a pressure drop of ½ p.s.i. is all that could be allowed across a low-temperature evaporator operating at -25°.

Nevertheless, the oil must not be permitted to gather in the evaporator. If the refrigerant in the evaporator contains an excessive amount of oil—enough to seriously impair its heat transfer or to raise the boiling point of the refrigerant—the evaporator is not properly designed or the velocity is too low to adequately keep the oil moving through and out of the evaporator.

That is one of the big difficulties of the multiple-pass evaporator—one consisting of several parallel tubes into which refrigerant is fed at one end and out of which vapor is gathered together in a "header" at the other end.

OIL LOGGING IN PARALLEL PASSES

It is extremely difficult to distribute the refrigerant through all of the passes so that each is fully active throughout its entire length, and to keep the oil moving through all of them and thus prevent some of them becoming "oil logged" and very inefficient.

Equalized distribution through the several passes could be accomplished by putting a separate thermostatic expansion valve on each pass, but this is usually prohibitively expensive.

OIL LOGGING IN SUMPS

We have been speaking of evaporators consisting of continuous tubes which have no traps or sumps in which the oil can gather. The vapor flowing through a closed continuous tube can keep the oil moving, but if the refrigerant evaporates in an accumulator or flat shell and the vapor is drawn off the top, the oil collects in the vessel.

The vapor cannot make the oil "jump" up out of the vessel, so as a result some method has to be used to lift the oil (with some refrigerant absorbed in it) up out of this sump, into a continuous tube where the moving vapor can drag it along back to the compressor.

This "lifting" is usually done by using a wick or a venturi tube or some similar device to pick up the oil from the sump and put it up into the tube leading directly to the suction line.

As long as the channel for the refrigerant vapor is continuous, such as a tube or pipe, and if the velocity is not too low, the vapor will keep the oil moving along the inside of the tube. The tube may have bends in it and it may go upward, downward, and to one side; it may dip under a pathway or over a door, for example, but the oil will be returned.

However, if it has a sump from which only vapor can escape, the sump will gradually fill with oil, unless enough liquid refrigerant can be splashed over the edge, or in some way get out of the sump to carry as much oil with it as the liquid coming into the sump brings with it.

The vapor that is boiled off carries very little oil, so it leaves most of the oil behind it in the sump. There it gradually collects until the "liquid refrigerant" that should be in the sump is mostly oil instead of refrigerant.

While the compressor is operating, the oil is moving back to the compressor along the inside walls of the

(Continued on next page)

VALVE BODY...
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V-200 Thermal Expansion Valve, manufactured by General Controls Company, Glendale, California.

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Refrigeration Tubes come to you completely dehydrated, with clean, bright interior walls.

French small diameter, thin gage tubes, in copper and copper base alloys, and aluminum, are available in standard sizes from .015" to 1" O.D., with wall thickness down to .005".

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See our whole line at the All-Industry Exposition, SPACE 217

Fig. 11—Oil Separator Installed on Suction Side

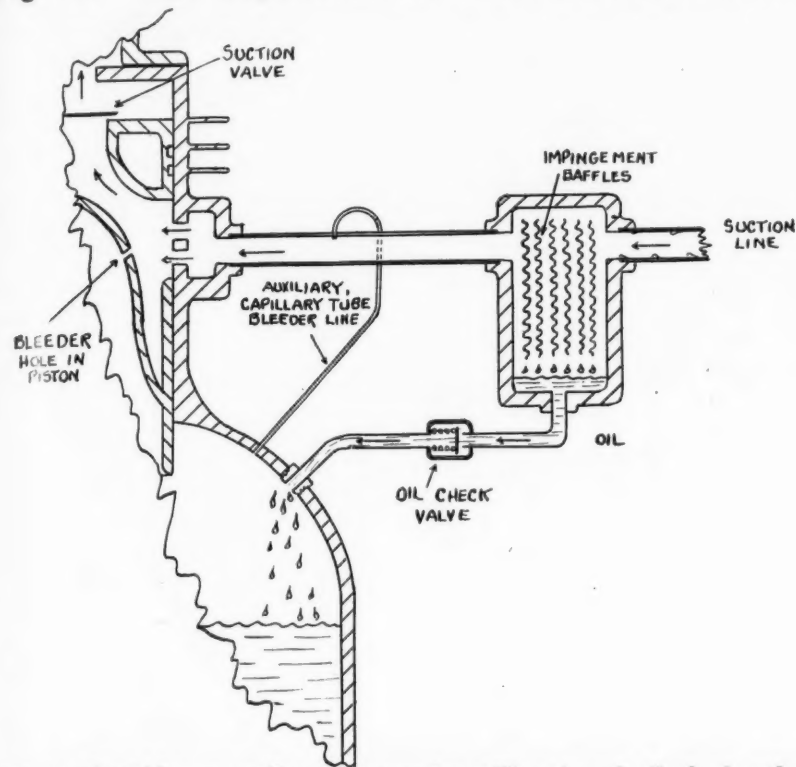


Fig. 11—Lowside, or suction oil separator with external oil check valve. Compressor has side-ported piston, with suction valve in its head. Bleeder hole is located in piston, but auxiliary capillary tube bleeder is also shown.

Application of the Oil Separator

(Continued from preceding page)

suction line tubing. When the compressor stops, this oil runs down to the bottom of the tubing and stays there if that part of the suction line is level. If it is a low place, the oil from the line leading down to it or the line leading upward and away from it will drain down into the low place, or "trap" as it is sometimes called.

The amount of oil trapped will, of course, depend on how long the lines are on each side of the trap. The amount of oil drained into the trap can be enough to entirely close the tubing.

In any event, the oil will go back to the compressor when it starts the next time. Sometimes, especially if the trap is near the compressor, it will go back all at once as a "slug" that is more than the oil reservoir can handle. It will cause the compressor to hammer and knock until the compressor has managed to dispose of the oil and pass it on to the condenser.

LINE TRAPS CAUSE OIL SLUGS, TOO

The fact that the compressor oil-slugs at the beginning of a run does not necessarily mean that it is not properly designed, with an oil check-valve, etc. There may be just too much oil coming back from line traps or from the evaporator itself, for the oil reservoir to handle. It is, therefore, quite helpful for the compressor to have an oil reservoir of generous size, to accommodate the

slugs of oil that may come back from line traps at the start of the running cycle.

There are numerous installations in which suction line traps are unavoidable; where the lines are long and consequently have a great deal of refrigerant and oil in them; where the suction gas is especially wet and the vapor itself therefore bears a good deal of oil; where the size and type of evaporator, or variation in load result in very considerable amounts of oil coming back at one time, much more than the oil reservoir built-in to the compressor can handle.

AUXILIARY RESERVOIR FOR EXCESSIVE OIL

In such cases a "low-side oil separator" can be used. Actually it is simply a large auxiliary oil reservoir placed in the suction line near the compressor, with a separate oil line going from it to the compressor crankcase. Such a device is shown in Fig. 11.

It is, in reality an oil trap, with an arrangement for getting the oil back to the crankcase. It consists of a tank with the suction line going in and out the top. A small oil line leads from the bottom of the tank, through a check-valve back to the compressor.

The oil that is in liquid form, either the normal amount flowing back along the inside wall of the suction tube, or slugs of oil from traps or other pockets of oil accumulations, simply empties into the cylinder from the inlet line.

The refrigerant vapor can have quite a little oil in it. If it is highly superheated in the evaporator or suction line it will have dropped most of its oil and this liquid oil simply empties into the tank.

The less the suction vapor is

superheated or warmed, above evaporator temperature, the "wetter" and colder it will be, and the more oil it will carry in this vapor.

When this oil-bearing vapor comes into the tank, it strikes baffles or passes through steel wool or similar material that deflects and lowers the velocity of the vapor.

SEPARATION BY IMPINGEMENT

The oil, however, clings to the baffles or steel wool and finally drips off and falls to the bottom of the tank. From there it flows back to the compressor crankcase through the oil line, in the same manner as it does from the built-in oil reservoir.

The vapor, which has now lost most of the oil that it carried, passes on out of the separator and on to the compressor.

The oil line must have an oil check-valve in it, just the same as

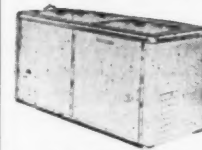
when this oil return passage is in the compressor—to hold the crankcase pressure up during the abrupt pressure drop at the start of the running cycle.

The small bleeder line in the compressor is usually sufficient. (It may be in the piston or elsewhere instead of as shown in Fig. 9.) If the compressor is not equipped with some sort of built-in bleeder passage, a capillary tube may be installed externally as shown in Fig. 11 to bleed the crankcase pressure down slowly.

Thus the suction, or low-side, oil separator performs the same function as the built-in oil-reservoir and check-valve, but is used when these are not large enough because of unusual amounts of oil from traps or other sources of oil slugs, or excessively wet, oil bearing suction vapor, or both.

(To Be Continued)

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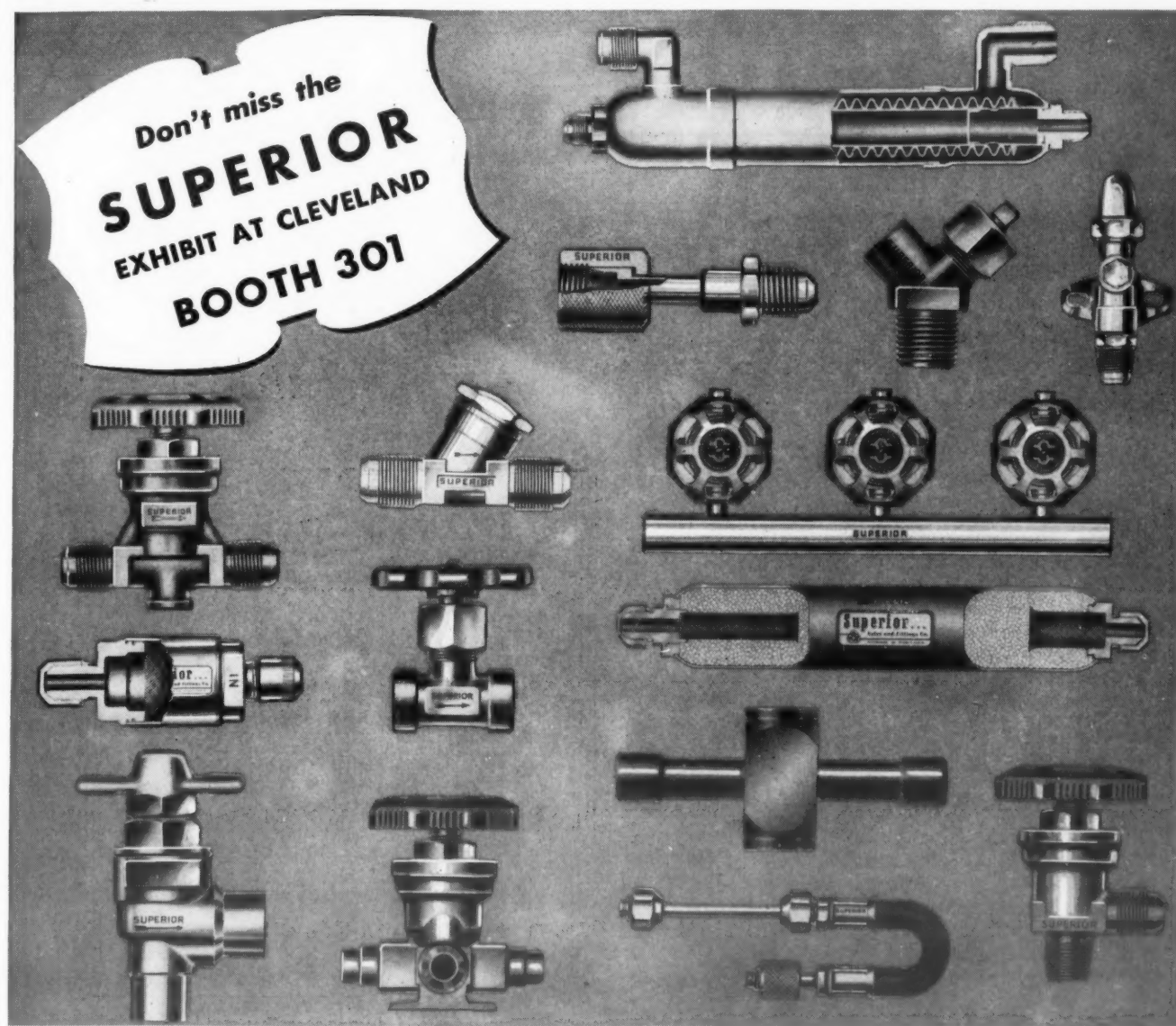
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Manufacturers Promise 'Surprises' In Their Exhibits at Industry Show

Alco Valve To 'Unwrap' New Items at the Show

First indication of what Alco Valve Co. will have on hand in automatic refrigerant control devices will have to wait until the firm's exhibit is unwrapped at the Exposition. Location of the Alco display will be Booth 608.

'Analyzers' Spotlights In Airserco's Plans

Among the eight types of Airserco Mfg. Co. products which will get their initial showing at the exposition is the new electric unit starter and analyzer.

The others are a valve analyzer, hermetic oil, replacement fans, portable evacuator, refrigerant transfer unit, refrigeration calculator, and replacement parts.

Accent of the display in space 424 will be on Airserco "Cost-Savers" for the service engineer and on new low-cost instruments for refrigeration service.

Redesigned Compressor Line In Curtis Display

An entirely redesigned line of refrigerating compressors is the principal product feature the Curtis Refrigerating Machine Div. will promote from Spaces 210, 212, and 214.

Both the air and water-cooled commercial condensing units as well as the 3-15 ton packaged air condi-

tioning units have genuine Timken tapered main bearings and compressors that are pressure lubricated, officials stated.

Like a Mystery! Then Superior Will Satisfy You

Like mystery exhibits? Superior Valve & Fittings Co. will have one at Booth 301.

Although new designs have been forecast for some of the firm's line of valves, heat exchangers, driers, and sight glasses, Superior was reluctant to release advance information as to their exact nature. Fittings, check valves, manifolds, and accessories will also be on display.

United Refrigerator To Display 4 New Products

Four new products will be shown to the trade by United Refrigerator Mfg. Co.—a combination beer dispenser and bottle cooler, a 25-cu. ft. reach-in, a two-temp reach-in, and a utility storage cooler.

Two other products will be on display in United's space, 511-513. They are a 34-cu. ft. reach-in and an ice cube maker.

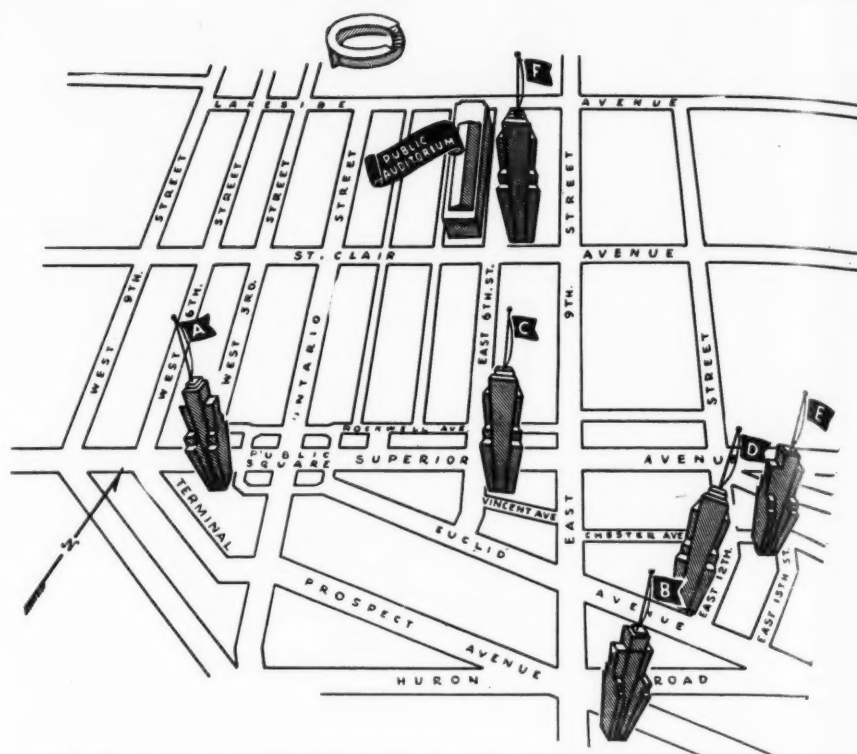
Miniature walk-ins also are to be exhibited.

Sanitary To Show Home Freezer Lines

Farm and home freezers will be displayed from Booth 218 by the Sanitary Refrigerator Co.

'Headquarters Points' at Cleveland Show

LAKE ERIE



Cabinet Lines, Units and Special Accessories To Get Show Spotlight

Wilson Exhibit Includes

New 2-Temp Refrigerator

In the Wilson Refrigeration, Inc., space, they'll be talking a lot about a new two-temperature refrigerator "operating from one condensing unit and maintaining at all times proper balance between the high and low temperature compartments."

Also, according to C. R. Mougey, advertising and sales promotion manager, "heavy emphasis will be placed on front opening convenience afforded by Wilson reach-in design."

Besides the new refrigerator, Wilson will move a complete line of its sectional and self-contained farm and home freezers, commercial refrigerators, low and normal temperature walk-ins, and milk coolers into the 1,200 sq. ft. of floor space provided by booths 702, 704, and 706.

The exhibit will be manned by J. E. Wilson, Jr., president; A. A. Davis, vice president in charge of sales; Mougey; R. C. Price, sales engineer; R. D. Pusey, chief engineer; and Paul A. Hunker, manager of national accounts.

Refrigeration Corp. Plans

3 Booths of New Items

All the products that will fill the three exhibit spaces occupied by the Refrigeration Corp. of America at the All-Industry Exposition will be new and will have never been shown before, RCA officials promise.

Of particular interest to the industry, they believe, will be the superstructures on their frozen food cabinets. These will have patented three dimensional pictures for displaying and promoting frozen food sales.

Another attraction getting attention will be RCA's "Spot Special" open top frozen food cabinet with the

"Wheel It Where You Want It" feature. This cabinet was designed for special frozen food promotions and can be moved anywhere.

Other new products to be exhibited are the G-1048 and G-748 multiple purpose frozen food cabinets, the O. T. 1048 open top multiple purpose frozen food cabinet, and K-D 160 walk-in freezer, and the I-C 1046 ice cream cabinet.

Detroit Lubricator To Show Valves, Controls

Expansion and solenoid valves and other refrigeration controls will be displayed in the two exhibition spaces occupied by the Detroit Lubricator Co. The firm's booth will cover spaces 503 and 603.

Specialty Fixtures Mark Victory Metal's Line

A sturdily built line of display cases, reach-ins, and other commercial fixtures will be on exhibition at Spaces 501 and 601, which will be occupied during the Exposition by Victory Metal Mfg. Corp.

Of all-welded steel construction, the company's assortment of goods will include a new sandwich unit, direct-draw beer dispenser, full-vision display case, and a back bar and wall case. In addition, Victory Metal plans to show stainless steel reach-ins, bottle coolers, dough retarders, and direct-draw beer systems.

Chicago Seal To Show Newly Designed Items

A newly designed retainer bar for valve plate seats is among the products that Chicago Seal Co. will promote at Booth 325 where seals and valve plates will be displayed.

Tyler Fixture Corp. To Present Seven '48 Models

Tyler Fixture Corp. expects to present the following seven 1948 models at the exposition:

An 8-ft. self-service frozen foods case, an 8-ft. open meat and dairy refrigerator, an 8-ft. conventional meat case, a 6-ft. under-bar beverage cooler, a 43-cu. ft. reach-in refrigerator, a 12-cu. ft. HARDERFreez home freezer, and a 10-cu. ft. HARDERFreez freezer for the display and storage of frozen foods and ice cream in retail stores.

Tyler personnel participating in the show will include Robert L. Tyler, president; Joseph W. Krall, executive vice president; Paul Jackel, general sales manager; J. B. Hennion, sales promotion manager; Ray Greene, assistant sales manager; Fred Eaton, HARDERFreez sales manager; and Hugh Cooper and Doyle Carpenter, divisional managers.

The company has been assigned booths 1002 and 1004.

New Items In Copeland Line To Get Showing

A visit to space 703-705 will enable you to inspect the new Copeland condensing units and other types ranging from 3 to 7½ hp. inclusive which Copeland Refrigeration Corp. will be exhibiting.

While there, you can look over additional Copeland's commercial refrigerating units (½ to 7½ hp.), electric pressure-type water coolers, and electric refrigerators.

McCord To Offer New Heat Transfer Products

Personnel in the McCord Corp. booth—107—will be telling spectators about the new hydrogen-brazed continuous round tube side entry condenser and aluminum fin evaporator surface on display for the first time.

Other refrigeration condensers and evaporators will be shown.

Berry To Show Vaneless Rotary Compressor

A brand new rotary vaneless type "Freon" compressor, which is said to have fewer moving parts and, therefore, a minimum of wearing and/or friction will dominate the Berry Motors, Inc. exhibit at the All-Industry Exposition. The Berry booth is No. 1122.

Sporlan Will Feature Filter-Dehydrator

Presentation of its new Catch-All filter-dehydrator in ¼, ½, and 1-ton sizes is scheduled to be the feature attraction in the Sporlan Valve Co. space—219 and 221.

Visitors to the exhibit will also look over Sporlan's thermostatic expansion valves, solenoid valves, solenoid pilot controls, refrigerant distributors, and strainers.

White-Rodgers Spotlights Control Design Change

A design change in the switch action of its refrigeration and temperature controls will be emphasized to Show visitors at the White-Rodgers Electric Co. booths. Under the new arrangement these controls can be used with two-circuit hook-ups merely by following the wiring diagram furnished with each control, the company stated.

Exhibiting from Spaces 211-213, White-Rodgers will show a complete line of refrigeration pressure and temperature controls. Besides the temperature controls, which are operated by the hydraulic action principle, some automatic defrost controls will be on display.

A. O. Smith Corp. To Introduce Motor Line

New single-phase and polyphase electric motors will be presented at the exposition by A. O. Smith Corp. No other details on the motors were given by the company, which will display them in space 1219.

Improvements to be stressed include the starting mechanism of integral horsepower, single-phase motors, it was announced.

'Packaged' Machine Units Mark New Liberty Line

Packaged systematized refrigeration, featuring Liberty hermetic compressors and condensing units in ¼ and ¾-hp. sizes, will make up the exhibit being planned by Liberty Motors & Engineering Corp.

All Liberty products are being shown for the first time, the company reports. A welded steel housed hermetic compressor and specialization in the ¼ and ½ hp. sizes will be emphasized by Liberty personnel in space 1207, along with high and low side combined systems for commercial applications.

Broquinda To Demonstrate Refrigerated Transport

First public showing of a completely automatic low temperature transport refrigeration system controlling the primary refrigerant at any temperature desired is scheduled by the Broquinda Corp.

Also exhibited at the Exposition in Spaces 917-919 will be the firm's line of refrigerated trailers and trucks which will include units for long and short hauling.

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For extra protection against leakage the Imperial Triple-Seal Flare Fitting has a groove in the seat which brings you triple-seal tightness in every joint.

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Extra length pipe threads on pipe connections provide new further protection against leakage . . . these threads are longer than formerly on sizes ¼" and over, and conform to the latest SAE standards. This extra length is especially valuable where reconnection is necessary as it provides for additional take-up.

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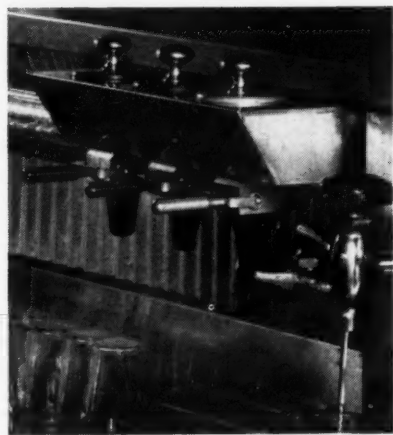
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What's New

5 Multi-Flow Dispensers Get National Promotion



Multi-Flow 3-valve dispenser.

PHILADELPHIA—The Multi-Flow dispenser, claimed to be a complete soda system for the bar, is being introduced nationally by Multi-Flow Distributors here.

The dispenser, which releases both straight soda water and a finished soft drink from one valve, is said to save both time and space for the barman.

Five models are being manufactured by Multi-Flow to meet the needs of varied size establishments. These are single, double, or triple valve units with 34-oz. capacity and single or double units with 1/2-gal. capacity.

The three valve dispenser, for example, will furnish three different soft drink flavors. In addition, straight soda can be drawn from each valve. Flipping the valve handle down serves the completely mixed soft drink. Flipping it up serves soda.

The units, made of stainless steel, will fit under any bar, according to the manufacturer.

With only six wood screws to be fastened beneath the bar and one seltzer line to be attached to the unit, installation can be made within a half hour, Multi-Flow claims.

"Our unit is self-contained in that

enough syrup is contained within the unit to furnish even the busiest bars with one day's soft drinks without refilling," the manufacturer said.

"There are no bulky syrup tanks to be placed under the bar or in the cellar, nor are there any long lines to be run to these syrup tanks.

"There are a minimum of moving parts to require service. Should a washer need replacing or a grain of dirt need to be removed from the soda line, a turn of a nut will drop the necessary part into your hand, permitting instant cleaning."

In addition to the time and space savings that the small amount of equipment required accrues, there is the saving in handling and storing bottles, Multi-Flow added.

The manufacturer pointed out that the Multi-Flow dispenser had been tested satisfactorily in 100 local installations before the decision to distribute nationally was made.

'Therm-O-Jug' Heats Pint Of Liquid, Keeps It Hot

NEWARK, N. J.—"Therm-O-Jug," an electric thermos bottle which is said to bring a full pint of liquid to a boil in a "jiffy" and hold it at a point just below boiling "indefinitely," has recently been introduced by Electrical Industries, Inc., 44 Summer Ave. here.

Made of ribbed aluminum with a durable jet black plastic base and a washable woven plastic heat-proof grip, the new appliance comes equipped with a 6-ft. detachable plastic cord. It is claimed that the jug, which shuts off automatically, cannot overheat.

Inside of the jug is aluminated, needing no scouring or scrubbing to keep the interior clean and bright, according to the manufacturer. The appliance uses 110 volts, a.c.



Hastings Meter Records Air Velocities of 5 f.p.m.

HAMPTON, Va.—The Hastings Instrument Co. here is introducing an ultra-sensitive air velocity meter which, it is claimed, will measure accurately air velocities as low as 5 ft. per minute.

The air meter is applicable to the measurement of velocities in ducts, the measurement of wind velocities, the measurement of flow in air and gas lines, and surveys of heating and air conditioning systems. The principle of operation is based on a unique combination of the hot-wire and thermopile principles. This arrangement increases the accuracy of the instrument by minimizing the errors due to air temperature variations.

The pickup element is a noble-metal thermopile which is placed in the air stream. Alternate junctions are arranged to have much greater cooling than the adjacent junctions which are heated by passing alternating current through the wire. The temperature rise of the warmer junctions is measured by the d.c. thermoelectric voltage generated.

This instrument operates from 110 volts a.c. power that may be obtained either from the house wiring or from a portable power pack that is battery operated. The instrument may be adapted for remote indication of velocity or flow of air or other gases. The output is suitable for operating standard strip or circular chart electrical recording instruments.

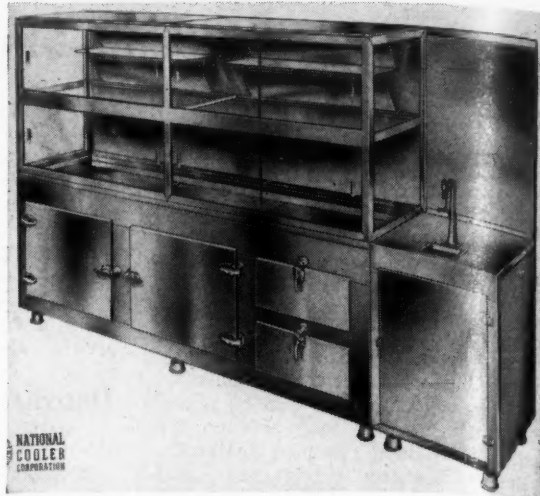
The standard range of the instrument is from 0 to 2,000 ft. per minute.

Unit Is Reach-In, Pastry Case, Water Station

CLEVELAND—National Cooler Corp. here, is introducing its new stainless steel unit incorporating a refrigerated base with an automatic water station and a mirrored pastry display case.

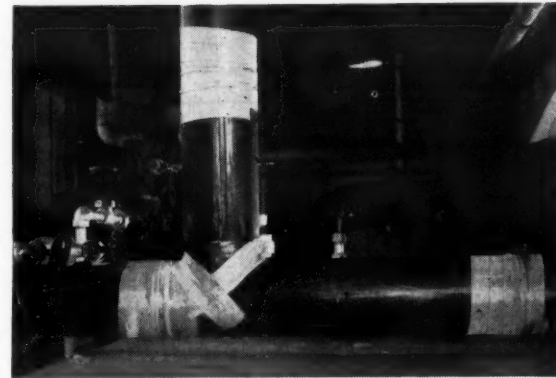
This unit, which is usually available only as a section of a complete kitchen assembly, can now be purchased separately in various lengths.

The unit described above is one of the number of new items that National Cooler is developing for the changing and increased needs of restaurants, many of which are going through a remodeling period after the overtaxed servicing of the past few years. The trend of these needs, say National Cooler officials, indicates a demand for stainless steel equipment of the open kitchen type



available in single units, which combined make up complete working facilities for the largest or smallest kitchen. Thus the restaurateur can make purchases of equipment as he needs it.

Insulating Tape Said To Stand 450° Temperature



CHICAGO—A war-born sealing and insulating material designed for use particularly with air conditioning and ventilating equipment has been developed by Bauer & Black, a division of the Kendall Co. here.

Called Fiberglas industrial adhesive tape No. 263, it is made of a thin Fiberglas cloth possessing high tensile strength backed by a pressure sensitive, thermo-setting reclaim rubber.

The Fiberglas cloth, according to the company, will not shrink or stretch, and is resistant to light, heat, and deterioration. The adhesive is self-vulcanizing, and adheres more

strongly the longer it remains in place.

Vulcanizing takes place after heat is applied, the firm stated. At temperatures above 200° F., the tape takes a permanent set. It will not deteriorate or lose adhesion at temperatures up to 450° F. after cooling, it claimed.

Company instructions say that the tape should be applied on clean, dry, oil-free surfaces. Outdoor applications during wet or cold winter weather should be avoided wherever possible, the manufacturer suggests.

The tape is made in 1, 2, and 3-in. sizes, though narrower or wider sizes may be had upon request, according to the manufacturer.

Applications suggested are sealing warm and cold air ducts, applying flexible connectors between plenum chambers and ducts in forced air systems, making an air-tight seal of anemostat fixtures to ducts in air conditioning systems, and use as a lagging tape to hold insulation on high temperature and low temperature lines.

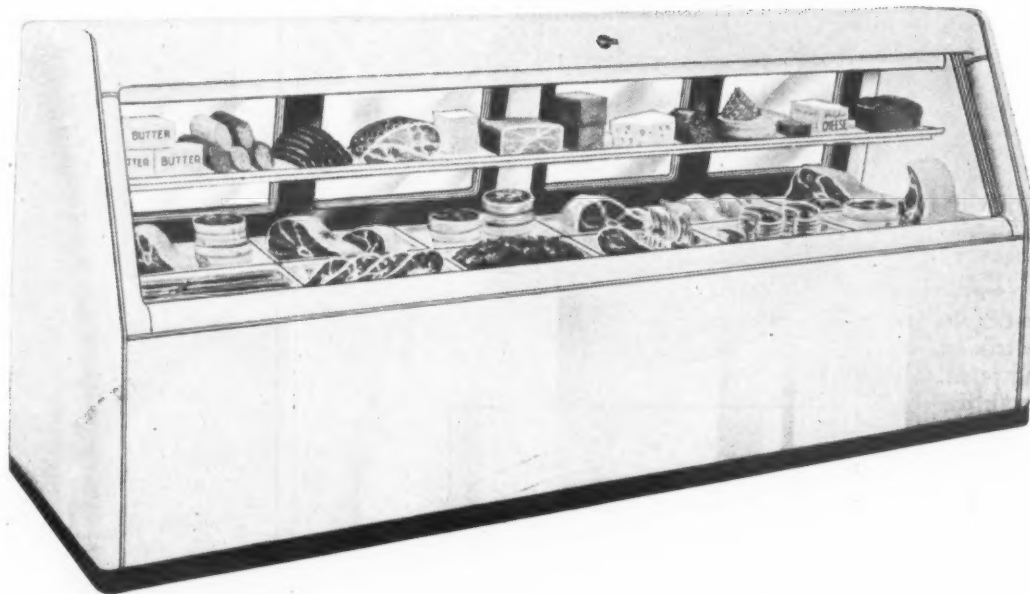
The manufacturer warns, however, that its recommendations are based on its own research and no guarantee of their accuracy is made. The product is sold without warranty expressed or implied and upon the condition that purchasers will make their own tests under their standard procedure to determine the suitability of the product for their purposes, he added.

He further noted that the tape should be stored at temperatures below 75° F. and kept not longer than four months in order to preserve its efficiency.

Due to chemical reaction and natural aging, the tape in roll form may eventually lose its thermo-setting properties, the manufacturer explained.

FOR THE DEALER
WHO RESPECTS QUALITY

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EXPOSITION



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1105 AND 1107



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350 ROOMS
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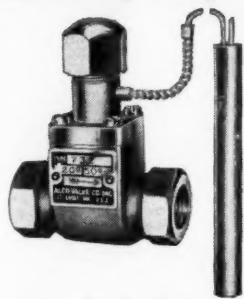
E. Wahl Simon
Managing Director

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Ideally located in the heart of St. Louis two short blocks from the Union Station and in the center of the Wholesale District... Preferred, always, by experienced travelers because of its outstanding advantages—Every room with private bath and shower and circulating ice water... Superior accommodations at ordinary rates... Visit our beautiful Marine Dining Room for the finest of meals, economically priced.

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What's New (Cont.)

Alco Suction Valve 732 Functions by Snap-Action



ST. LOUIS—A new snap-action suction valve which responds directly to load temperatures and thereby, it is claimed, eliminates the need for electrical wiring and such accessories as thermostat-solenoid combinations has been introduced by Alco Valve Co. here.

Designated as Type 732, the valve is installed in the evaporator suction line and the remote or feeler bulb is located in the same way as a thermostat bulb. The bulb should be located to pick up or reflect the average temperature of the refrigerated area, and it is not ordinarily mounted on or near the evaporator, the company explains.

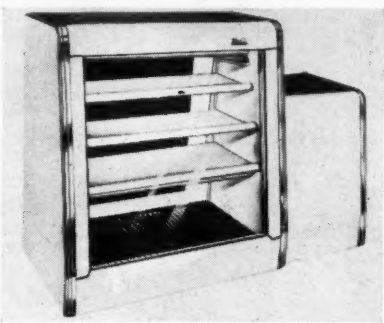
Temperature range of this valve is from 20° to 50° F. with an operating differential of 2°. Adjustment to desired temperature is provided by an adjustment stem and dial under the seal cap, the dial being graduated in 1°.

Automatic defrosting is obtained on the "off" cycle if the fixture temperature is above freezing, Alco states. Narrow temperature differential of the control minimizes frost build-up by reducing the running periods and keeps dehydration at a minimum, it is said.

Standard length of capillary tubing supplied is 5 ft., and both inlet and outlet line connections are 1/2 in. F.P.T. The valve is rated at 1/2 ton for "Freon-12," 3/4 ton with methyl chloride.

Operating characteristics of the new valve make it adaptable to such commercial applications as beverage and drinking water coolers, display cases, vegetable storage, two-temperature jobs such as soda fountains, and other installations, it is claimed.

Details of the valve and application data are given in Bulletin 732 published by Alco.



Small Selb Case Affords 1,500 sq. in. Display Room

ST. LOUIS—The new "XS-4" display case announced by the Selb Mfg. Co. of St. Louis is a development designed to boost sales of delicacies in the modern retail store because it permits candies, dairy products, cheeses, and other delicacies as well as wines, flowers, biologicals, to be safely displayed.

The "Selb XS-4" display case is portable and so compact that it occupies only 4 ft. of floor space and yet provides over 1,500 sq. in. of illuminated display front as well as over 30 sq. ft. of visible shelf space. The large front is non-fogging, triple-paned, crystal clear glass.

The entire all-steel construction is Bonderized and finished in glistening black enamel and trimmed in gleaming chrome. The large easy-acting reach-in door makes all shelves readily accessible from the rear.



New Humidity Indicator Gives Direct Readings

NEWARK, N. J.—A new quick-reading all-metal Humidity Indicator, designed for use in industry and laboratory, has been announced by the Weston Electrical Instrument Corp., Newark.

The Indicator provides readings of relative humidity accurate within 1% for general conditions.

The instrument is of wet and dry bulb type, featuring all-metal Weston laboratory thermometers, self-supporting wet-bulb wick covering the thermal element, sturdy all-metal construction, and a simplified slide rule calculator giving relative humidity reading directly, thus eliminating the need for tables or psychrometric charts. The unit is light and well balanced, and can be swung if desired to create air movement.

The slide rule calculator, located on the face of the instrument directly beneath the two dial-face thermometers, indicates relative humidity from 10% to 100%. With one movement of the slide the proper setting is made according to the readings of the two thermometers, and the per cent humidity is shown immediately on the upper scale. The instrument requires no calibration.

The wet and dry bulb humidity indicator is considered to be a most practical and accurate device for general requirements. The dry bulb gives the free air temperature. The wet bulb is surrounded by a wick saturated with water. Evaporation of the water cools the wet bulb below free air temperature by an amount proportional to the rate of evaporation.

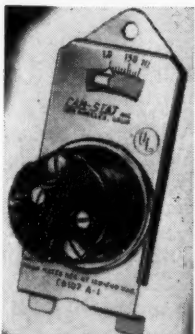
The rate of evaporation depends upon the amount of water vapor already in the air. The smaller the proportion of moisture in the air, that is, the lower the per cent hu-

midity, the greater the rate of evaporation and the lower the wet bulb temperature.

In very rare cases the air is perfectly still, and a cloud of water vapor may gather around the wick, retarding natural evaporation. The inaccuracy this might introduce may be avoided with the Weston indicator by hand swinging, forcing the air past the wick to carry away the vapor clouds.

1 Screw Fastens Electric Control for Water Heater

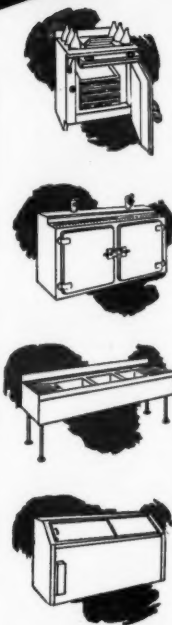
LOS ANGELES—Simple adjustment and low cost are claimed as features of the new Cam-Stat Type CD107 automatic electric water heater control, recently introduced by Cam-Stat, Inc. here.



Mass installation costs for the control, which is rated at 3,000 watts, 240 volts a.c., are said to be low as only a screw is necessary to secure the instrument to the conduit box bracket. In addition the control is reported to have a high carrying capacity.

Temperature range of the lower and upper thermostat is 60° to 190° F. Differentials are 10° F. for the primary thermostat and 25° F. for the secondary thermostat. Lower differentials are available on request, according to the manufacturer.

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economy
performance
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Supremetaline



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the jolly mixer
for tavern—for home

IT'S NEW! Nothing else like it! The Jolly Mixer provides fingertip facilities for mixing simple highballs or fancy cocktails.

IT'S ECONOMICAL! Rapid service saves time, all-in-one facilities save space! Ice cubes (20 lbs. per freezing!), bottles, fruit, sugar, utensils, towels, cutting board, bottle de-capper, refuse receptacle—everything in one place!

IT'S PRACTICAL! The Jolly Mixer is engineered to "mix" with other Supremetal underbar equipment and to mix drinks at the same time!

Write TODAY for catalog showing the complete profit-making SUPREMETALINE!

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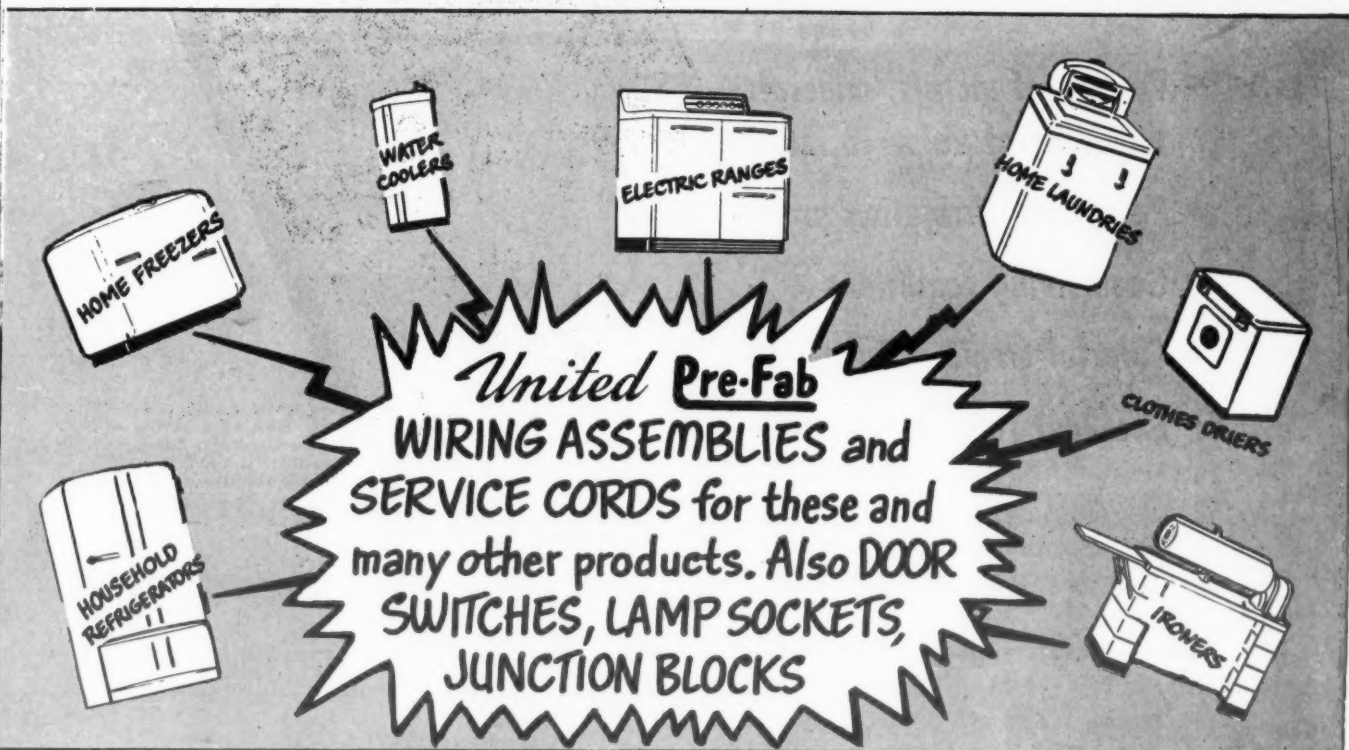
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Hundreds of thousands of dollars have been saved by refrigeration and appliance manufacturers in the past few years through the use of UNITED Pre-Fabricated Wiring Units.

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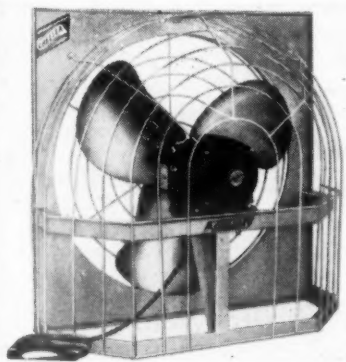
UNITED engineers are specialists in refrigeration and appliance wiring techniques. Over two hundred fifty trained assemblers, in 36,000 ft. of space, assure you adequate production to meet your schedules without delays.

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Chelsea Type AA utility fan

Chelsea Utility Fan Can Operate In Any Position

IRVINGTON, N. J.—A new Chelsea type AA utility fan that is portable and can be operated in any position has been introduced by the Chelsea Fan & Blower Co., Inc. here.

The new fan, according to the company, is especially adaptable for applications requiring drying and cooling by an air blower. These include cold storage, milk cooling, meat storage and quick freezing rooms.

It can be operated from any position because the motor is equipped with ball bearings, the manufacturer said. It may be floor mounted without any additional support or suspended at any angle.

Blades are all steel, die stamped and die formed. The unit is equipped with front and back safety guards and an extension cord and plug.

It is available in two sizes, the 20 in. size delivering 3,000 c.f.m. and the 24 in. size delivering 4,800 c.f.m.

Air delivery ratings are determined by the standard test code of the Propeller Fan Manufacturers Association and the American Society of Heating and Ventilating Engineers.

West Penn Power Ups Range Installation Price

PITTSBURGH—To cover rising costs, the price of a standard electric range circuit, when installed by the West Penn Power Co. here, will be upped to \$15 on Jan. 1, 1948, the utility has announced.

An electric water heater circuit will then cost \$10, it added.

These prices are quoted for a standard circuit in a single family dwelling or its equivalent. Others

will be handled on a time and material basis, the company stated.

This change in price is the only alteration of the company's range and water heater service entrance policy, West Penn emphasized.

Detroit Refrigerator Plans Holiday Party

DETROIT—Annual Christmas party of Detroit Refrigerator Mfg. Co. here will be held for employees and friends at the Slovene National Home, 17149 John R., on Dec. 19, Lee Hayes, president, has announced.

Van Cleef Bros. Becomes Wholly Owned Subsidiary Of Johns-Manville Corp.

NEW YORK CITY—Johns-Manville Corp. has announced the purchase of Van Cleef Bros., Inc., of Chicago, manufacturer of "Dutch Brand" industrial and automotive products.

The Chicago firm will be operated as a wholly owned subsidiary of Johns-Manville Corp. No change is being made in the manufacturing, merchandising, or distribution system of Van Cleef Bros., Inc., in business since 1909.

The present personnel is being continued in the Van Cleef organization. Noah Van Cleef will remain as president and treasurer and his two brothers, Felix and Paul, will continue as vice presidents for sales and production, respectively.

The products of Van Cleef Bros., Inc., consist mainly of those involving the use of crude and synthetic rubber, going from liquid cements to molded parts, sponge rubber and coated materials, including a large variety of commercial and industrial tapes.

The products of Van Cleef Bros., Inc., complement and in no way duplicate industrial and automotive products manufactured by Johns-Manville, it was said.

"Acquisition of the Chicago company will enable Johns-Manville greatly to extend its service to industry and the public and add many more products closely allied to the 1,200 now manufactured by Johns-Manville," the company announcement said.

Birthday Meal Prepared In 30 Minutes



Irma Harding, International Harvester home economist, conducts her "Fashions In Freezing" demonstration at the firm's 100th anniversary.

Overhead Mirror Permits Detailed View Of Harvester Frozen Food Demonstration

CHICAGO—Frozen food demonstration, a major event at International Harvester's recent celebration of its one-hundredth anniversary as a Chicago industry, set a new style in freezer demonstration work.

The demonstration, called "Fashions In Freezing," was conducted by Irma Harding, IH home economist. To tie in with the centennial spirit of "Harvester's 100 Years in Chicago," Miss Harding set before her audiences a birthday buffet of frozen foods with all the tasty, eye-appealing trimmings.

On the stage, an 11-cu. ft. International Harvester home freezer and an attractively appointed buffet table dominated the scene. One new feature was the use of a large mirror hung over the table at such an angle that the whole audience could see everything that went on.

Reminding her audience of the time and trouble a birthday party can be for harassed mothers, Miss Harding showed dramatically how today's housewife can whip up a complete birthday meal in just 30 minutes—with the help of a home freezer. Her menu included appetizer; chicken a la king served in individual nests of french fried noodles; tomato-cheese salad; and a lusciously iced birthday cake.

Popping into the oven the food that needed heating, Miss Harding gave a brief resume of the economy and importance of freezing, stressing the standard procedures in freezing vegetables, fruits and baked foods. Explaining each step as she did the actual work—proper selection, preparation and packaging—she gave a clear, convincing demonstration of the ease, speed and convenience of freezing over any other method of food preservation.

Unruffled, untired—still in her role of the modern housewife—Miss Harding placed the whole delicious-looking birthday buffet on the table. In just 30 minutes from the freezer to the table, she had prepared a feast to do justice to any birthday; had delivered a brilliant demonstration of the superiority of freezing; and had produced from her magic freezer food for an imaginary dinner party.

Within the next few months, International Harvester refrigeration dealers plan to conduct 5,000 "Frozen Food Facts" demonstrations. Coast to coast in scope, the program is primarily aimed at popularizing the economy, efficiency and convenience of home freezing. Popular education in the value and importance of frozen foods is considered the primary object of the demonstrations.

24-tray Ice Cube Maker LOOKS GOOD • IS GOOD • SELLS GOOD



SCCU-24 A fine cube maker that really works. 336 large cubes (24 quick-release trays, 14 cubes to a tray), each cube measures 1 1/2" x 1 1/2" x 1 1/2", totalling 48 pounds of ice. (Cube-maker by Bush). Cabinet is well insulated and measures over-all, width 26", depth 20", height 40 1/2". 20 gauge polished, rust-proof, stainless steel, 302-18-8, No. 4 mill finish front and top. Sides of aluminum. Interior satin finish stainless steel—302-18-8, streamlined ends, concealed brass chrome plated hardware. Designed for easy servicing. Expansion valve is right out in front. Powered by a 1/4 H.P. machine. Order now for quick delivery. (Can also be supplied in remote models.) Write for our illustrated catalogue.

Exclusive Distributorship Available.

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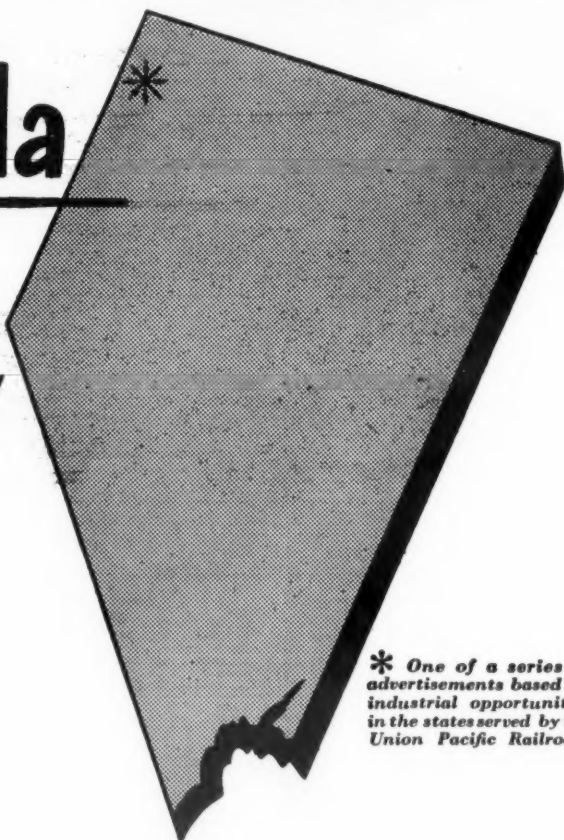
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TREASURE MAP OF INDUSTRY

Nevada

- Variety of metals, minerals and ores of value to industry
- Power and irrigation projects
- Good living conditions
- Colorful scenic attractions
- Excellent rail transportation



* One of a series of advertisements based on industrial opportunities in the states served by the Union Pacific Railroad.

Manufacturers, packers and processors will find Nevada a storehouse of raw materials. There are deposits of copper, silver, gold, zinc, lead and uranium. Mineral ores and minerals include tungsten, manganese and antimony ore, magnesite, gypsum, sulphur, borax and vanadium. Building stone and marble also are available.

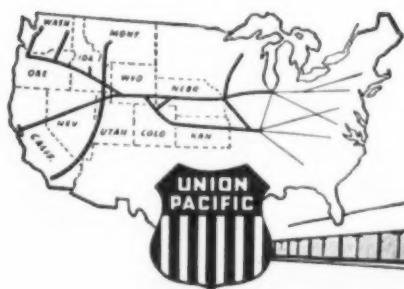
Cattle, sheep and poultry raising are expanding agricultural pursuits and there also is some production of a variety of grains, vegetables and fruits.

Irrigation and power are supplied by several Federal projects including famous Hoover Dam.

Nevada's healthful climate, excellent educational system, and a variety of scenic attractions contribute to the advantages of living in this western area.

Each year, thousands of vacationists visit gigantic Hoover Dam, beautiful Lake Mead and near-by picturesque Las Vegas.

Union Pacific provides top-notch freight and passenger transportation so essential to a State's industrial development.



* Address Industrial Department, Union Pacific Railroad, Omaha 2, Nebraska, for information regarding industrial sites.

UNION PACIFIC RAILROAD
THE STRATEGIC MIDDLE ROUTE

The editors of
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are pleased to announce
the long awaited publication
in book form of

Paul Reed's
"Refrigeration Problems
and Their Solution,"

2 volumes, J-1 and J-2

Price: \$1.00 each

Parts Wholesalers are invited to
order immediately and be assured
of adequate stock.

Business News Publishing Co., 450 W. Fort, Detroit 26

Many First Showings of 1948 Lines Scheduled Jan. 26-29

New Condensing Units Are Among Lehigh 'Firsts'

The exposition means two "firsts" to Lehigh Mfg. Co. Lehigh's name was the first taken from the hat in the drawing for choice of booths (the company selected 226 and 228). And it will announce and exhibit new condensing unit models for the first time.

General Manager J. C. Miller said no information on the new models would be divulged until exposition time. The models will be displayed along with a representative line of units from 1/4 to 5 hp.

Personnel in Lehigh's attractively-decorated space will include Frank E. Shumann, president; Alvin A. Shumann, vice president; Miller; C. L. Coulter, assistant general manager; and district managers from Chicago, Detroit, New York, Dallas, San Francisco, Philadelphia, Florida, and the southeast.

Jordon Will Introduce Complete New Line

To acquaint its dealers throughout the country with the new advanced 1948 line of Jordon commercial refrigeration products, the Jordon Refrigerator Co. is planning to hold its annual dealers' convention and sales meeting during the week of the All-Industry Exposition.

Several sessions will be held at which a new motion picture, recently completed at the Jordon plant in Philadelphia, will be shown. The film will cover factory operation, assembly line production, and the complete 1948 line in color.

At its booth, No. 906, Jordon plans to display samples of most of its 1948 models. A new line of streamlined, self-contained beverage coolers, featuring low back doors for speedy service and refilling the cooler, will be exhibited for the first time.

Also on view will be the M16 frozen food merchandiser; the TC16 bulk storage freezer; the 14-6 refrigerator-freezer locker; the SWC37 and SWC23 self-contained, reach-in refrigerators; a new 4 ft. full vision display case; the P-50 double duty porcelain display case; the RD8 wall type display case; an open type self service display case for food market installations; and the Lc-42 counter height stainless steel display case.

Factory personnel scheduled to attend the exhibition include Frank Fogel, president; Albert Fogel, vice president in charge of sales; Harry Fogel, treasurer and purchasing agent; Robert J. Duffy, national sales manager; Maurice Zatzko, export manager; and Alfred Levin, advertising and sales promotion manager.

Spencer Thermostat Shows Motor, Unit Protectors

Postwar products now in volume production will be exhibited at the Exposition by the Spencer Thermostat Co. when it displays dome-mounted overheat protectors and motor starting relays at Booth 1008. Other items that the firm will show are: dome-mounted protectors for hermetically sealed refrigeration units, motor starting relays especially designed for sealed compressors, various thermostatic devices, and laminated metals including thermostat bimetal, contact material, etc.

Century Electric To Show Many Types of Motors

Hermetically sealed refrigeration motors and gear motors manufactured by the Century Electric Co. will be displayed at the Century Electric Co. booth, No. 909, at the All-Industry Exposition. These motors, according to the company, are of the squirrel cage form J, capacitor, totally enclosed, fan cooled, explosionproof, direct current type.

Fedders To Introduce Air Conditioner Line

A new line of Fedders unit air conditioners, featuring simplicity of installation, high capacities, and controlled direction of air for use in homes and offices will grace booth 403 at the All-Industry Exposition.

Besides its air conditioner line, the Fedders-Quigan Corp. will display its unit coolers, condensers, and clip-on superheat thermometers.

Orley Will Introduce 'Super Seven' Freezer

The Orley "Super Seven," claimed to be an entirely new freezer, will make its bow to the industry at the All-Industry Exposition, according to officials of Orley Freezers, Inc.

The Super Seven is completely automatic in operation—no dials to set, the company says. They also claim that their product is the first packaged unit to use Santocel insulation.

Because of that, they add, the unit provides 7 1/2 cu. ft. of storage space in less room than is used by some 5-cu. ft. freezers. "Our super cooler allows us to operate this new freezer to temperatures of -15° F. with a 1/2-hp. Tecumseh hermetic condensing unit," they state.

Booth 1210 is the spot for refrigeration men to get a good close-up view of this Orley innovation.

American Injector To Show Wide Line of Accessories

Headlining American Injector's exhibit at Booth 126 will be a new line of low priced oil separators, a company official announced.

Although previously shown, all products following have been improved and will also be in evidence at the Exposition: high side floats, water regulating valves, snap action valves, constant pressure valves, starting load regulator valves, loaded check valves, line check valves, and water strainers.

New Service Thermometer To Be Shown by Marsh

Specially designed for use by servicemen, a new thermometer with four scales is to be exhibited at the Show by the Jas. P. Marsh Corp. along with its new Duotemp Indoor-Outdoor thermometer.

Pressure and vacuum gauges and other refrigeration instruments are also scheduled for a showing at the company's booth, No. 114.

Altered 'Trufin' Tubing In Wolverine Showing

Increased fin height on its Trufin tube while inside diameter specifications have remained the same are claimed by the Wolverine Tube Division of Calumet & Hecla Consolidated Copper Co., which will exhibit its line of tubing and tube parts in booth 505 at the All-Industry Exposition.

This facilitates end connections using standard or commercial sizes of plain tubes, the company added.

Besides the Trufin, the company will show its seamless non-ferrous tube, its fabricated tubular parts, and its spun end parts.

Acme Industries To Reveal New Products

A new line of AP/FP evaporative condensers and a new model of the Blo-Cold forced convection unit will be shown by Acme Industries, Inc., at Booth No. 604.

Also displayed will be Acme's shell and tube condensers, Dry-Ex water chillers, heat exchangers, and oil separators.

Principal factory executives and 13 sales representatives from the field will be on hand, according to a company announcement.

New Valves, Manifolds Promised By Kerotest

New in the Kerotest Mfg. Co. line to be shown at the Exposition are shut-off valves, integral forged manifolds, and streamlined globe valves. Other refrigeration and air conditioning valves and fittings will be on display at Spaces 220 and 222.

Dairy, Ice Cream Units In Franklin Exhibit

New model dairy cases and ice cream cabinets will be spotlighted at the Franklin Refrigeration Co. booth at the All-Industry Exposition. The firm's line of frozen food display cabinets will also be shown in booth 1120.

New 'Package' Promised For Lewin Mathes Items

Lewin Mathes Co. refrigeration seamless copper tubing and fittings dressed up in a new package will be the highlight of that company's booth at the All-Industry Exposition. Both are new products and may be seen in booth 1022.

COLD AND COLDER

Alert to the need for greater storage capacity for frozen foods, a combination cooler has been added to the SHERER line of display and storage refrigerators... and there's a section for 38°F and one for 0°F. This refrigerator will find favor with food markets, hotels, restaurants, institutions, and clubs. Also available to SHERER distributors is an all-freezer cooler in a variety of sizes.



REFRIGERATED MERCHANDISERS

SHERER-GILLETT CO.
Marshall, Michigan

JUST PUBLISHED New handbook on Air Diffusion

How to select, install and adjust diffusers for greater control of air conditioning performance

The new handbook contains the latest engineering data on air diffusion in general and the use of adjustable air diffusers as a positive means of eliminating drafts, hot spots, cold spots, poor humidity control, stratification, air noise, ceiling smudge and other complaints. It is profusely illustrated with photographs, sketches, charts and dimension prints for quick, accurate Selection—Application—Location—Assembly—Erection—Testing—Adjustment of Air Diffusers and of Accessory Equipment such as air equalizing grids, mounting rings and air sectorizing baffles.



Illustration from handbook showing how Kno-Draft Adjustable Diffusers blend with interior.

BEAUTY for an air diffuser lies in its simplicity and ability to blend with an interior. Kno-Draft Diffusers in their original aluminum furnish an interesting and unobtrusive decorative accent. Painted to match the ceiling, they become self-effacing. Because of this simplicity of design, Kno-Draft Diffusers blend easily with modern or period interiors.

FREE to those who design, install and maintain air conditioning equipment



Illustration from handbook showing industrial application of Kno-Draft Diffusers.

UTILITY: The air direction and volume on each Kno-Draft Diffuser can be altered after installation. This eliminates the tough job of deciding everything about the air movement in advance. Also, you can change the air pattern with the seasons or when processes, people or partitions are relocated.



ECONOMY: Kno-Draft Adjustable Diffusers save time and money three ways. 1. **Installation**—Special self-contained inner unit construction saves installation time—some contractors report up to fifty per cent. 2. **Balancing**—Capacities of diffusers may be read directly and simply on a velometer and the air volume change can be made by simply turning a screw. 3. **Adjustment**—No "after-installation" worry. Complaints are adjusted simply and quickly.

W. B. Connor Engineering Corp.
Dept. A-17, 112 East 32nd Street
New York 16, New York

Please send me a copy of the new Kno-Draft Handbook on Adjustable Air Diffusers.

NAME _____
POSITION _____
COMPANY _____
STREET _____
CITY _____ ZONE _____ STATE _____

W. B. CONNOR ENGINEERING CORP.

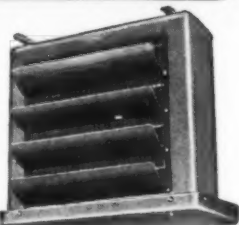
Air Diffusion • Air Purification • Air Recovery

112 East 32nd Street New York 16, New York

IN CANADA: Douglas Engineering Co., Ltd., 1405 Bishop St., Montreal 25, P. Q.

PERFORMANCE WITHOUT COMPROMISE

From internal engineering to external finish, every factor in Larkin refrigeration products is flawless in execution. The same constructive ability which originated patented Cross Fin Coils also produces Humi-Temp Forced Convection Units—Bare Tube and Zinc Fused Steel Plate Coils—Air Conditioning Units—Instantaneous Water Coolers—Evaporative Condensers—and other high-grade items demanded in the commercial and industrial refrigeration field.



LARKIN COILS 519 MEMORIAL DRIVE • S.E. ATLANTA • GEORGIA

WHITE HORSE CABINET CO.

Manufacturers of
FROZEN FOOD Display CABINETS

DEPENDABLE
EFFICIENT
HANDSOME



SALES
VOLUME
BOOSTERS

Specifications STANDARD SIZES

Self Contained.

10 cu. ft. length 72 in. width 30 in. height 32 in.
16 cu. ft. length 92 in. width 30 in. height 32 in.

Remote Installation.

16 cu. ft. length 72 in. width 30 in. height 32 in.
24 cu. ft. length 108 in. width 30 in. height 32 in.

- White Porcelain with Stainless Steel Top.
- Two 1/2 in. Plate Glass removable sliding doors, framed in Stainless Steel.
- Interior Lining—Heavy Gauge electric welded Steel Tank.
- Insulation—4 inch Fiber Glass and 1 inch Temlock, properly sealed.

In modern markets, Stores, Restaurants and Lunch Rooms, this is the Ideal Frozen Food Preserver and Display Cabinet.—A credit to any surroundings.

Where Freshness and appearance is important it saves unnecessary expense due to shop-worn merchandise used for display purposes.

White Horse Frozen Food Cabinet users report increased Sales Volume of all frozen food products, and Acclaim their White Horse Cabinet to be their most Profitable Spot Merchandise.

Write or wire now for complete dealers price list. Immediate delivery on all Standard Size Cabinets.

WHITE HORSE CABINET COMPANY

Manufacturers of
Frozen Food Display & Ice Cream Cabinets
HARLEYSVILLE, PENNA.

Wide Variety of Refrigeration Products and Accessory Items To Be Shown at Cleveland

Water Cooler Model With Ice Trays by Coldstream

"Several firsts" will mark the water coolers to be exhibited in space 1006 by The Coolstream Corp., promises Lyonel Berken, president.

Among the coolers will be a new bottle-type unit and a new pressure-type model incorporating the use of stainless steel and plastics. In addition, Coolstream is going to show bottle-type coolers having a storage compartment exceeding one cubic foot and having two ice cube trays.

Berken, G. C. Billitter, and G. Berken will man the booth.

Virginia Smelting Shows New Leak Detector

Two booths, Nos. 204 and 206, will be occupied by the Virginia Smelting Co. during the Exposition. One will be designed for demonstrations and entertainment. The other will be semi-enclosed for conference purposes.

Service engineers visiting the demonstration booth will be treated to a view of what Virginia officials term "a new and unique type of leak detector."

Others to whom the leak detector might not appeal will be drawn (in more ways than one) to the booth by Pete Boyle, famed artist and caricaturist, doing his stuff.

Telephone service will also be provided at the booth for the convenience of guests.



Many new items, like this ice maker, make their bow at the All-Industry Refrigeration & Air Conditioning Exposition. With the show scheduled for January, it is expected that most of the manufacturers will be ready with their new 1948 models.

Representatives of the firm's technical staff will be on hand to discuss refrigerant applications and problems. Rubbing shoulders with the experts will be A. K. Scribner, sales manager; Charles W. Johnston, general manager; R. H. Israel, sales promotion and advertising manager; H. T. Palmer, H. B. Channon, and S. C. Sone-son, also from the factory.

plugs, brackets, light sockets, door switches, and selected items from the company's line of general purpose motor controls.

Cutler-Hammer, Inc., representatives who will be found around booth 128 include: P. S. Jones, vice president in charge of sales; A. R. Johnson, merchandising sales manager; R. M. Van Vleet, refrigeration sales manager; L. P. Niessen, advertising manager; and W. R. Reinhold, assistant refrigeration sales manager.

'Butcher Boy' Doors To Be Described

George W. and Robert E. Slopa will man booth 101 at the Exposition to display products of the Butcher Boy Cold Storage Door Co. They will tell visitors about Butcher Boy cold storage doors and their hardware including: super seal fasteners, finger tip openers, track door operators, auto close hardware, and the new Butcher Boy spring type hinge.

'Jumbo' Model To Reveal C-H Control Features

A jumbo size model of the Cutler-Hammer universal replacement control will get top billing at the company's booth at the All-Industry Exposition.

This control, the company explains, is a single knob unit that provides an adjustable cutout feature, adjustable range, adjustable mounting brackets, and a shaft and knob design which permits the use of evaporator shield markings and any shield thickness.

Also on display will be custom built controls, a variety of exact replacement controls, semi-commercial controls, commercial controls, accessory equipment such as starting relays, freezers, alarm switches,

Full Vision Cases To Get Evans Spotlight

The complete redesigned 1948 line of full-vision display cases manufactured by the Evans Mfg. Corp. of Mt. Vernon, N. Y. will be exhibited at booth 1119 during the All-Industry Exposition.

Examples of the different type cases to be seen are the Evans 6-ft. full-vision display case, the 5-ft. self-service display case, and the 8-ft. wall-type dairy case.

On hand to greet friends will be Joseph Eventoff and David Goodman.

Low-Temperature Units To Head Ace Cabinet Display

Displayed at the Ace Cabinet Corp. booth, No. 905, will be a farm and home freezer, ice cream storage cabinet, frozen food display cabinet, upright low-temperature cabinet, soda fountain creamer, bobtail, sandwich unit, and a toaster stand.

Company representatives on hand will be: A. Unger, E. Levine, M. Silver, E. I. Stern, E. G. Sears, W. Barrow, M. Herzer, and N. S. Bloomenstein.

quick, easy opening
and firm, crisp closing
are basic features
of this

UNIVERSAL COOLER LOCK

DESIGNED PARTICULARLY FOR
WALK-IN COOLERS

No. Z-326 LOCK

- MALLEABLE IRON—CADMIUM FINISH
- KEEPER ADJUSTABLE 1/4 TO 2 INCHES
- WEIGHT 10 LBS.

and

No. 1 FCS HINGE

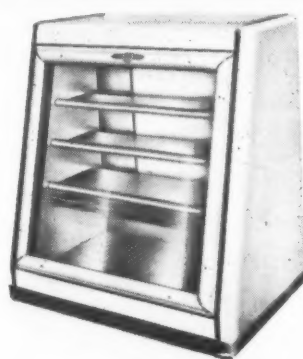
- STEEL BLADE, CAST IRON BUTT
- CADMIUM FINISH
- BALL BEARING
- OFFSETS FLUSH TO 1 3/4 INCH

Arcaide makes a full line of hardware for commercial units. For complete specifications send for catalog A-9 and prices.

ARCADE MANUFACTURING DIVISION
ROCKWELL MANUFACTURING COMPANY, FREEPORT, ILLINOIS



THE PICTURE OF QUALITY



DISPLAY CASE NEW — IMPROVED

This PERFECTED DISPLAY CASE has expansion valve installed, coils hooked up, with drain included.

We Also Manufacture a Complete Line of Commercial Refrigeration Equipment

IMMEDIATE DELIVERY
ALL EQUIPMENT GUARANTEED



GENERAL REFRIGERATORS CORP.
MANUFACTURERS SINCE 1928
NEW YORK 12, N. Y.
678 BROADWAY



Industry Show Preview

Wabash To 'Section' Its Products To Show Details

Latest models of Wabash giant and midget dryers, high side floats, charging hoses, and sep return units will be displayed at the Wabash Mfg. Co. booth at the All-Industry Exposition.

These include four giant dryers equipped with Poronze depth filters and ranging in capacity from 50 to 200 cu. in., three midget all-brass dryers of from 2 to 4 cu. in. capacity, a high side float, three close-coupled charging hoses whose couplers swivel on both ends, and a combination oil separator and return designed for 1/2 to 1 1/2-hp. units.

All Wabash parts and assemblies, including the sep-return units and Poronze equipped parts, will be sectioned to show all details.

Also displayed will be the Wabash patented "Capillary" flow control tubes and Actex units; all types of Wabash speed couplers and charging hoses, and Wabash preformed solder rings and silver solder flux.

Ready to demonstrate their products to all comers will be Edward W. Mack, president; Martin Cahenzli, Jr., vice president; and Robert E. Caplan, engineer. Wabash will occupy booth No. 302.

Baltimore Aircoil Shows Centrifugal Fan Condenser

A new model of centrifugal fan evaporative condenser, 10 T. R. Type "U," and a special development of the company for outside installation, 10 T. R. Type "CPE" propeller fan condenser, are scheduled to be the main items shown by Baltimore Aircoil Co., Inc.

The centrifugal fan condenser features a reversible fan section with angular discharge, a reversible bottom section, and "extreme" accessibility to all working parts. It is manufactured in sizes from 10 to 100 T. R. in increments of 5 T. R.

Features of the propeller fan condenser are listed as "extreme" accessibility, ease of maintenance, counter-flow heat transfer, and low horsepower consumption. It is produced in sizes from 10 to 50 T. R. in increments of 5 T. R.

Liquid receivers also will be displayed.

Welcoming visitors to the booth—1212—will be John Engalitcheff, Jr., president, and Ray R. Forseille, vice president.

B. A. C. expects to exhibit the same equipment at the Heating and Ventilating Exposition in New York City.

'Cross-Flo' Drier-Filters Operate at Remco Booth

Main feature of the Remco, Inc., display will be an operating unit showing heavy-duty "Cross-Flo" drier-filters installed in the liquid line, in the low side between the refrigerant control and the evaporator, in a by-pass between the liquid and suction lines, and in the suction line.

To supplement the demonstration, Remco will pass out to each visitor a folder describing in detail the effect of the refrigerant temperature on drier-filter efficiency and the advantages of installing the drier in the low side and suction line.

Visitors to booth 425 will also be able to look over the whole line of Remco "Cross-Flo" drier-filters and filters, standard duty driers and filters, and "Liquid Fin" heat exchangers.

Kenneth M. Newcum, president, will attend the show, accompanied by Walter P. Stewart, assistant treasurer, and seven representatives.

Slides Will Show How Bundy Tubing Is Manufactured

The Bundy Tubing exhibit at the All-Industry Exposition will consist of a display case showing methods by which Bundyweld tubing is manufactured and samples of various fabricated tubing parts, according to J. A. Dugan of the Bundy sales department.

This display case will be augmented by two framed cabinets containing film slides showing how Bundyweld tubing is fabricated, its advantages, and actual refrigeration applications for it.

Samples of various tubing parts and assemblies will decorate the booth, No. 407.

Personnel manning the Bundy booth will include G. D. Baker, vice president and director of sales; P. A. O'Connell, sales manager; and H. L. Millet and Dugan.

Sun Oil Co. To Have 'Fountains of Oil'

Fountain displays of Suniso refrigeration oils will pour down over transparencies of refrigeration industry subjects at the Sun Oil Co. booth, No. 920, at the All-Industry Exposition, according to the company.

Characteristics of the oils will be shown in connection with these displays, it added.

Part of the firm's booth will be devoted to photographic explanation of how flow tests are conducted to determine waxing tendency in refrigeration oils. Results of tests conducted at various temperatures will be included.

In an island position will be a blow-up of the Suniso oil can. Another blow-up will illustrate the Sun technical bulletin, "Lubrication of Refrigeration and Air Conditioning Equipment." Copies of this bulletin will be distributed in the booth along with other Suniso literature.

Manning the booth will be R. H. Anders, manager of the Industrial products department; Dr. E. S. Ross, technical representative; L. H. Fritz, industrial advertising manager; W. S. Coppock, laboratory technician; and C. G. Karsch and J. B. Ferguson, Jr., advertising assistants.

Taylor Features Electric Water Coolers, Fountains

Halsey Taylor electric water coolers and non-refrigerated wall-type drinking fountains will fill booth 120 at the All-Industry Exposition. The water coolers will be in various sizes and capacities, both in the hermetically sealed and open types.

Representing the Halsey W. Taylor Co. at the booth at different times during the show will be: J. F. King, sales manager; T. R. Rose, purchasing agent; C. P. Freer, engineer; M. J. Shriner, chief engineer; H. O. Bartlett, personnel director; and G. A. Kistler, factory superintendent.

Imperial To Exhibit Tools, Driers, Valves

A new "Hi-Duty" flaring tool, an improved "Torpedo" drier, and the Imperial "DiaSeal" valve will share the spotlight in The Imperial Brass Mfg. Co. space, booths 426 and 428.

C. H. Benson, assistant vice president, M. Mitchell, K. Waugh, G. Duerr, T. Byrnes, F. Wilson, T. Fuite, and E. F. Todd will tell visitors about these items and the following other products on display:

Triple-seal flared tube fittings, high side floats, liquid indicators, charging lines, a charging and testing unit, a service valve kit for hermetic units, and tools for cutting, flaring, bending, pinch-off, and swedging.

Streamlined Fish Counter Comes From Monterey

Latest 1948 models of the streamlined Monterey meat and fish counter cases and reach-in refrigerators will be exhibited at booths 1121 and 1221 during the All-Industry Exposition.

The Monterey line is manufactured by the Ward Refrigerator & Mfg. Co. of Los Angeles.

The meat and fish counter cases are made in both double-duty and top display types. The reach-in refrigerators feature a variety of door and interior arrangements.

All refrigerators are available in a wide range of sizes with solid or glass doors, blower coils, ice makers, and frozen food compartments.

Ward executives attending the exposition will include D. T. Ward, Harry Ward, S. E. Talbot, Gordon H. Fitch, Joe H. Free, Harold J. Kelley, L. A. Stark, P. R. Asmussen.

Sealed-Type Safety Head By Black, Sivalls & Bryson

A new sealed type safety head, latest addition to Black, Sivalls & Bryson's family of safety heads, will get featured billing at booth 320 at the All-Industry Exposition.

This pressure relief device, available for a bursting range of from 200 to 500 lbs. is claimed by its manufacturer to assure the operation of a "gas-tight" installation until pressure builds up to the designed rating of the disc.

Standard body construction is brass. The unit is equipped with a fine silver rupture disc. Various inlet and outlet threads are available.

Stage managing the show will be Bert Huff, general sales manager of the firm's special products division, and his assistant Jim Meyers.

★ NUMBER ELEVEN ★

"We Haven't Begun To Fight"

ONE OF THE MYSTERIES of the home appliance business is this conundrum: Why has the sales volume registered by room air conditioners been so piddling?

People in the home appliance industry think in terms of millions of units per annum—3,000,000 refrigerators, 6,000,000 radios, 2,000,000 washing machines, 1,500,000 ranges. But room air conditioners are produced only in the thousands. Possibly in the last ten years no more than 150,000 self-contained units—including all sizes—have been sold.

What's the trouble here? Is it the product that isn't right? No, the product is good. Furthermore, public acceptance is high. Could it be that our promotional approach is at fault? Yes!

The household electric refrigerator got nowhere while it was still called "the iceless refrigerator." It was not until the industry's promotion managers broke bread together and agreed to sell *good health*, and to call their product an *electric* refrigerator, that this great home appliance began its rapid rise. Is there a pregnant parallel here? Yes, again!

The electric refrigerator and the room air conditioner have two things in common: (1) they protect the health of the user, and (2) pride in their possession makes the buyer happy about his investment.

However: Pride of Possession, intriguing as this buying appeal certainly is, seldom justifies a sale. An *unselfish* reason for purchasing a new product must be introduced into the selling argument. And the most "unselfish" reason-for-buying of all is *better health*.

Mr. and Mrs. Smith might have yearned for an electric refrigerator in order to "keep up with the Joneses" (or get ahead of them) but they didn't buy one until they were given an *unselfish reason* for that purchase, such as "better health for all the family."

Distributors of unit air conditioners can learn a useful lesson at this point from the experience of their predecessors in the appliance business. Here's a suggestion:

Don't talk about *comfort*; talk about *health*.

Packaged air conditioners not only cool the air—they cleanse it, purify it, and screen out dangerous germs and dirty particles. By reducing the strains and stresses of hot weather upon human nervous systems, they also make owners less prone to mental crack-ups (most doctors agree nowadays that more of our ailments are attributable to mental and emotional causes than they are to physical weaknesses).

A room air conditioner protects the health of the entire family. It should be in use all the year 'round. Because it wards off respiratory diseases—which comprise the bulk of all communicable epidemics—and because it reduces the incidence of nervous disorders, it cuts down doctor bills by eliminating sleepless, worried nights for yourself, the missus, and the kids.

Viewed in this light, the room air conditioner becomes a valuable investment—not only in happiness, but in health.

This is one of a series of 26 advertisements dedicated to the progress of the entire air conditioning industry by

NEVINGER MFG. CO., INC.
GREENVILLE, ILLINOIS

Wide Variety of Industry Products Will Go on Parade at Cleveland

Frigidaire Shows 100-lb. Commercial 'Meter-Miser'

Focal point of the ultra-modern display worked out by Frigidaire will be the G-M division's new Meter-Miser refrigerating unit designed for commercial and industrial applications and weighing little more than 100 pounds.

The rest of the array of refrigerating equipment being produced by Frigidaire will consist of:

The new 8-cu. ft. home freezer, a 5-ton package store air conditioner, one of the new self-contained 360-

bottle dry beverage coolers, a six-hole ice cream cabinet, a combination air and water-cooled compressor, a water-cooled compressor, a forced air coil, and a 3-gal. bottle water cooler.

Operating displays in the booth (1217) will include a Meter-Miser hooked up to a cooling coil to form a frost ball, a huge animated replica of the unit to illustrate simplicity of operation, and the bottle water cooler.

Wall panels made up of photographic enlargements and illustrating Frigidaire's extensive product

lines will comprise the background for this equipment. The photographic panels will be illuminated by an indirect light source mounted behind plastic. Exhibit decor will be of citron-yellow and pastel grey.

Factory personnel planning to attend the exposition include W. F. Switzer, commercial sales manager; M. C. Schenk, national business sales manager; A. C. Freimann, assistant commercial sales manager; G. A. Hayner, of the commercial sales department; and J. B. Nahstoll, of the advertising department.

Two roomy storage baskets, mounted on slide rails on top of the storage compartment, were recently added to the 8-cu. ft. home freezer, Frigidaire reports. Another new feature is a permanent freezing shelf with built-in cooling coils.

The freezer has a counter-balanced lid, an automatic alarm signal, extra-thick insulation, and refrigerant coils built into the four walls of the storage compartment. It is powered by one of the company's rotary refrigerating units.

Victor Products To Show 6 Late Commercial Models

Six of the latest model commercial refrigeration products manufactured by the Victor Products Co. will be exhibited in that firm's booth at the All-Industry Exposition.

They will include Victor's "Quick-freeze" frozen food refrigerator, beverage cooler, ice cream holding cabinet, refrigerated candy display cabinet, ice maker, and milk cooler.

Most recently developed of the group is the candy display cabinet. It provides both storage and display space with a superstructure for sales messages.

**SEE
OUR DISPLAY
AT THE
CONVENTION
BOOTH 1110**

The LA CROSSE COOLERS CO.
LA CROSSE WISCONSIN

More VALUE SALES PROFIT

Realizing that 80% of all frozen foods are sold on the spur of the moment, **ULTRA-COLD** has designed their cabinets to offer the most attractive display of frozen foods possible... the best point-of-sale advertisement for increasing sales. There is no trick in selling **ULTRA-COLD** Freezers... their modern, sales stimulating features make **ULTRA-COLD** a must with smart merchants.

30 INDIVIDUAL UNITS TO CHOOSE FROM FOR COMMERCIAL USE

MODEL 112 DBL (illustrated) Display Back Freezer Approximately 12 cu. ft.

Length 64", Width 30", Height 53".

2 Clear 100% Vision Sliding Doors. Display back has full view mirror. Fluorescent lighting, price rack and cards.

Finish: Exterior, No. 4 finish, high polished stainless steel top with blue-white baked enamel sides.

5" of scientifically approved insulation. Finger-tip thermostatic control. Automatic Expansion valve. Heavy duty commercial type condensing unit. 110-220 volt 50 or 60 cycle single phase. Refrigerant Freon. Adjustable cabinet dividers.

Write today for further details on how to handle the profitable **ULTRA-COLD** line.

ULTRA-COLD

ULTRA-COLD INCORPORATED • 2615 EXPOSITION PLACE • LOS ANGELES 16, CALIFORNIA

The beverage cooler features a readily accessible built-in compressor unit that reduces the floor space needed for the unit.

The ice cream holding cabinet is a chest-type refrigerator of white enamel featuring a deck mounted compressor and two deep storage compartments.

Victor bulk ice makers are of the brine immersed can type, freezing 25, 50, and 100 lb. cakes.

Representing the company at the Exposition will be J. K. Noel, Jr., vice president in charge of sales; and Sloan Willis, advertising manager. The Victor booth is number 1012.

Visible Evaporator To Be Operated by Jahco Units

Central section of the space occupied by Jack & Heintz Precision Industries, Inc., will be reserved for the exhibit's outstanding single feature—a visual demonstration of evaporator action operated by Jack & Heintz open-type and hermetic condensing units.

"Utilized is a master control board, with pyrex glass evaporators permitting perfect spectator visibility of evaporator effect as first the open-type condensing unit, then the hermetic unit is placed in actual operation," the firm reports.

"Different types of controls are employed, and three refrigerating systems—full-flooded, semi-flooded, and dry-expansion—are used alternately to heighten the effect."

The demonstration was incorporated in the exhibit as a result of "tremendously favorable reaction" it has been accorded at recent wholesaler-serviceman meetings across the country, the company added.

The entire display, according to Jack & Heintz, is "based on the combination of precision craftsmanship with high-speed production for which the company is known the world over." Around that theme has been built a multi-color, five-part display panel to portray the production and performance standards to which every J. & H. condensing unit and electric motor must conform.

Ray Legg, vice president in charge of sales, and F. R. Kohnstamm, general sales manager, will be present in booth 908 to answer questions and assure visitors of a comprehensive picture of J. & H. operations and products. Also present, with their staffs, will be Larry Breck and Frank Haag, of the Refrigeration Sales Division, and Lowe McIntyre, of the Electric Motor Sales Division.

The company said arrangements are being made for inspection of plant facilities while the exposition is in progress. Guests will have an opportunity to view both condensing unit and motor assembly lines.

Variety of Products To Get Betz Corp. Spotlight

Here are some of the new products you'll find displayed by Betz Corp. in booth 609:

Low temperature coils with automatic defrosting; a combination unit for reach-ins embodying an ice cube maker, low temperature storage compartment, and refrigeration coil; a half round ceiling unit for walk-ins; a unit specifically designed for open vegetable and dairy cases, and a unit for closed-type display cases.

These items will be shown along with Betz Corp.'s complete line of forced convection cooling units. The exhibit will include a wide variety of coils covering practically the entire commercial refrigeration field, according to Lyman B. Betz.

And here's the personnel you'll find in the booth: Betz, V. C. Knight, R. W. Schreiber, and John Blumhardt.

Tubing, Charging Hose In American Brass Booth

The American Brass Co. exhibit in space 217 will feature primarily the products of its French small tube and American metal hose branches, a company announcement declared.

The French small tube display will include Anaconda dehydrated refrigeration tube, capillary tubing in a single 2,500-ft. unjointed coil; and formed and fabricated tube parts.

American metal hose will show its vibration eliminators and refrigeration charging hose.

Anaconda types K and L copper tubes will also be exhibited.

American Brass personnel attending will include M. B. Allan, sales manager of the French small tube branch; F. W. Green, W. E. Meister, P. A. Coleman, R. Hegarty, E. J. Coleman, and A. B. Freeman.

Schnacke To Introduce New Condensing Units

Against a background dramatizing its advance-engineered refrigerant cooled steel cylinder sleeve, Schnacke, Inc. will present a line of condensing units ranging from 5 to 50 hp. at the All-Industry Exposition, according to F. C. Schnacke, president.

New in the line will be the models ATC-5 and ATC-25 condensing units, featuring shell-and-tube cleanable-type condensers mounted in the base.

Besides Mr. Schnacke, visitors to booth 123 will find Parke Syers, chief service engineer, and G. A. Lamb, field service engineer, there to greet them.

Mayflower Pedestal-Type, Ceiling Units To Be Shown

Mayflower ceiling and pedestal-type air conditioning units and Mayflower standard condensing units (¼ to 2 hp. air cooled, ½ to 3 hp. water cooled) will be shown to the trade in space 122 by Mayflower Products, Inc., Richmond, Ind.

Information on these products will be dispensed by Brouse D. Rinehart, president and treasurer, and Albert D. Greene, engineer.

Jarrow Shows Gaskets, Gasket Handling Items

Gaskets, gaskets, and more gaskets will fill the Jarrow Products booth at the All-Industry Exposition.

There will be all-rubber gaskets, sponge rubber cushion gaskets, sponge rubber tubing insulation, low temperature waterproofed webbing gaskets, rubberized fabric door gaskets, and greaseproof covering and rubberized fabric covering gaskets.

For wholesalers there will be the firm's new gasket corner cutters and a new gasket display reel stand.

Dividing their time between booth 322 and the Hotel Cleveland will be Col. Harry W. Jarrow, Stanley L. Jarrow, and Richard Nosek.

FREEZER SENTRY

BUZZ-Z-Z

when the Freezer breaks down...

- Every owner of a home freezer needs this signaling device to insure quick warning of mechanical failures. Whether you sell freezers or not you can sell the Freezer Sentry. Every day more freezers, without any signaling device, are being delivered in your territory. You know the owners. They need the Freezer Sentry. Particularly important for a rural owner at a distance from service facilities.

Here Is Why You Should Sell the Freezer Sentry

- A package item. Installed by anyone in two minutes.
- Positive action. No thermostat to get out of order. A drop of mercury makes the contact.
- Battery operated. Trickle charger insures 5-year battery life and 100 hours buzzer operation.
- An extra good profit margin for you.

Immediate delivery. Write today for descriptive material and price sheet.

JEWETT ASSOCIATES
1053 MAIN ST. BUFFALO 8, N.Y.

Stoddard Promotes--

(Concluded from Page 1, Column 4)

eration products now being produced by the firm includes a 5-cu. ft. table top, apartment model refrigerator, a 4-cu. ft. table top home freezer with front opening door, and a 13.5-cu. ft. upright freezer with four separate inner compartments.

Stoddard also announced that the firm expects to produce in the near future a standard electric bottle cooler that can be used both wet and dry for bottlers and contract buyers.

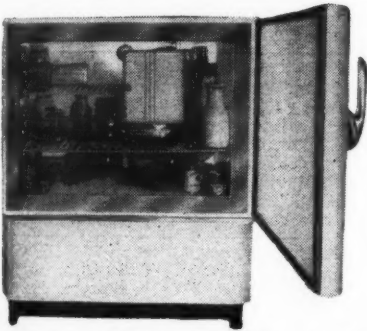
The firm's products are now being concentrated in the Midwest and South because lack of materials holds production down to 100 to 150 cabinets per day, he asserted. His plant has a capacity of 200 cabinets per day.

Stoddard stated that the Stoddard Mfg. Co. was established in 1939, growing out of the Stoddard Co., distributor of refrigeration and air conditioning equipment.

At that time it began to manufacture walk-in coolers, reach-in coolers, beverage coolers, and farm freezers.

In August, 1941, it received an army contract for refrigerated chests. During the remainder of the war period it turned out refrigerators for the Federal Public Housing Authority, and made walk-in coolers and freezers.

After the war, construction, that is still going on, was started on a new modern factory building. Serviced by two railroads and two blocks of trackage, the new structure covers a city block and provides 40,000 sq. ft. of manufacturing space.



5-cu. ft. table-top household electric refrigerator made by Stoddard.



Stoddard upright home freezer with four door-compartments and 13.5-cu. ft. capacity.

New charging and testing equipment was recently set up on recommendations furnished by Nash-Kelvinator Corp. for a high vacuum and dehydrating process for coils and units and for correctly charging the refrigerant in each refrigerator system, Stoddard said.

Both Kelvinator and Tecumseh hermetically sealed units are used in the various refrigerator models.

Lockerator refrigerators are equipped with all welded cabinet exteriors and interiors, he declared. All wood framing and wood parts have been eliminated.

A steel sub frame is used around the outside shell but is concealed from view, he explained. The interior food compartments rest on insulation and are anchored and separated from the outside cabinet by a strong plastic breaker.

In addition to its electric refrigeration products, 14,000 ice refrigerators have been produced so far this year on a contract basis under the trade marks of Stoddard, Automatic, Vitale, Montgomery Ward, and Sears & Roebuck, Stoddard disclosed.

Other executives of the firm, which was incorporated June 1, 1946, are Irvin C. Whistler, assistant manager and chief engineer, and George Malek, plant manager.

Whistler had been chief engineer for Ice Cooling Appliance Corp. Malek was production manager of the Champion Outboard Motor Co.

Kelvinator Nets--

(Concluded from Page 1, Column 2)

pressed the hope that output in the current fiscal year will be at higher levels.

Nash-Kelvinator has spent approximately \$26,000,000 in enlarging and modernizing its facilities, improving its products, and investments and advances to its subsidiaries during the past two fiscal years, Mason said. Approximately \$15,000,000 for similar purposes is planned during the 1948 fiscal year which will bring the corporation's expenditures to nearly \$41,000,000 over a three-year period. The purpose of the improvement and expansion program is partly to offset higher material and labor costs through increased efficiency, and to strengthen the corporation's competitive position, he said.

Nash-Kelvinator's expansion and modernization program has been financed both from earnings and from long-term borrowings. Including an additional \$20,000,000 long-term loan arranged a year ago, the corporation's total long-term borrowings now amount to \$30,000,000, of which \$2,000,000 is payable annually through 1961 and the balance in 1962.

Working capital, now the highest in the corporation's history, was \$59,084,244 at the close of the 1947 fiscal year, or \$21,442,521 greater than a year earlier. The major share of the increase is attributable to the additional loan arranged last year.

New peacetime records in employment were established last year, according to Mason. Average employment for the year was 21,432, an increase of 5,412, or 33%, over the previous year.

National Commercial Refrigerator Sales Association

(All Meetings at the Hotel Carter)

Monday, Jan. 26

2:00 p.m.—Meeting of the board of directors.

Tuesday, Jan. 27

2:00 p.m.—Annual meeting.

7:30 p.m.—Annual banquet, speakers. Grand Ball Room.

National Commercial Refrigerator Sales Assn. Plans Cleveland Conclave

MINNEAPOLIS—Along with other industry organizations, the National Commercial Refrigerator Sales Association will hold its annual banquet and business meeting concurrently with the 5th All-Industry Exposition in Cleveland.

Preliminary details of NCRSA's program have been released by R. H. Muehlberg, executive secretary.

First session on the program, as now arranged, will be a meeting of the board of directors at 2 p.m. on Jan. 26. It will be held in the Hotel Carter, as will all association activities.

This will be followed by the annual business meeting on Jan. 27, starting at 2 p.m.

The annual banquet is set to start at 7:30 p.m. on Jan. 27, in the Carter's Grand Ball Room. Muehlberg will act as toastmaster.

Speakers thus far scheduled to

address the group include George B. Herman, Minneapolis, president of the association; George F. Taubeneck, editor and publisher of AIR CONDITIONING & REFRIGERATION NEWS; Ernest Stultz, of Viking Refrigerator Co.; and A. J. Edmundson, Raleigh, N. C., secretary of NCRSA.

Besides Herman, Edmundson, and Muehlberg, other officers of the association are H. B. Adams, Tampa, Fla., vice president; and Harry A. Hattenbach, Cleveland, treasurer.

Directors are Z. O. Jennings, Little Rock, Ark.; I. W. Shell, Chicago; M. David Dubb, Washington, D. C.; Gordon L. McWilliams, Atlanta, Ga.; Thomas H. Sullivan, Houston, Texas; Charles Q. Sherman, New York City; Charles A. Kohl, St. Louis; Clifton S. White, Cincinnati; J. W. Jennings, Greenville, S. C.; W. C. Bader, Tulsa, Okla.; and Walter Jones, Raleigh, N. C.

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MANUAL NO. 1—The theory and principles of refrigeration explained in simple terms. Characteristics of common refrigerants. Construction and operation of the major component parts of a household refrigerator. 144 pages. 114 illustrations. 6 tables and charts. Price \$1.00.

DIAGRAMS

MANUAL NO. 2—Diagrams show how to distinguish the difference between the fundamental types of systems. Detailed instructions regarding the proper methods of installing and servicing each type. A comprehensive guide for all the popular makes. 128 pages. 179 illustrations. Price \$1.00.

DETAILED DATA

MANUAL NO. 3—Detailed data on methods of servicing several special refrigerators including Allison, Electrice, Holmes, U. S. Hermetic, Majestic Conventional, Majestic Hermetic, Socold, Iroquois, and Welsbach. 144 pages. 59 illustrations. Price \$1.00.

SERVICE INFORMATION

MANUAL NO. 4—Service information on 12 makes of household electric refrigerators including Absopure, Apex, Atwater Kent, Coldspot (Sunbeam and Sears), Copeland, Dayton (Niagara), Fairbanks-Morse, Graybar Ig-Kold, Iceberg, Liberty, Rice, and Servel. 129 illustrations. 128 pages. Price \$1.00.

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HERE'S HOW TO MAKE IT EASY...

Delco motors, in whatever appliances they drive, do their work without laboring—because they are engineered to meet the torque and service requirements of each specific application. Many of the leading makers of refrigerators, washers, ironers, stokers, oil burners, air conditioners and other appliances specify Delco motors—because they know they can depend on Delcos for long, effective, trouble-free service. Millions of appliance users know that, too . . . and when they buy additional appliances, "It's Delco-powered" is a powerful sales talk all by itself. . . . Delco motors are built in sizes from 1/8 to 50 h.p. Delco Products Division, General Motors Corporation, Dayton, Ohio.

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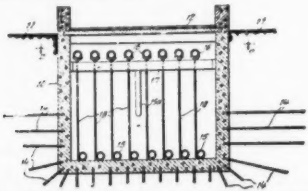
DELCO MOTORS
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PATENTS

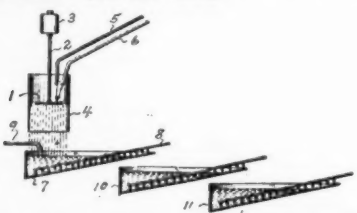
Weeks of Oct. 14 & 21

2,428,876. **AIR-CONDITIONING SYSTEM FOR COOLING OR HEATING.** Reginald R. Hawkins, Tuckahoe, N. Y. Application July 10, 1944, Serial No. 544,267. 8 Claims. (Cl. 62-6.)



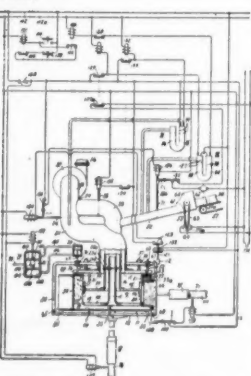
1. In a heating system, a heat storage reservoir imbedded in the ground, coils in the upper and lower portions of said reservoir, separate reverse cycle refrigerating systems connected to the respective coils, a thermostat in one system adapted to control the circulation of refrigerant through the upper coil, and a differential thermostatic device in the other system controlling the flow of refrigerant in the lower coil and depending upon the difference in temperature between the reservoir liquid and the temperature at another point in the system.

2,428,895. **METHOD OF MAKING SILICA CONTAINING GELS.** Mark Shoeld, Baltimore, Md., assignor to The Davison Chemical Corp., Baltimore, Md. Application July 26, 1944, Serial No. 546,713. 4 Claims. (Cl. 252-317.)



2. A method of making an alumina silica gel comprising playing separate streams of an alkali metal silicate and aluminum sulphate onto substantially the same spot on a substantially horizontal surface rotating about a vertical axis, and collecting the reaction product discharged from the rotating surface by centrifugal force.

2,429,059. **REFRIGERATION INSULATION.** Edward H. Horstkotte, Erie, Pa., assignor to General Electric Co., a corporation of New York. Application Jan. 26, 1940, Serial No. 315,779. 25 Claims. (Cl. 20-101.)

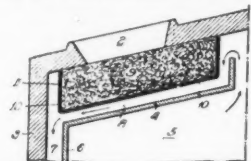


1. In combination, apparatus for conducting relatively loose, fibrous thermal insulating material into a cabinet of the type having inner and outer walls with thermal insulation disposed therebetween, temporary lining means arranged to be substituted for one of said walls while filling said cabinet with insulation, means for conducting said insulating material to said first-mentioned means, and means dependent upon the conduction of a predetermined amount of insulating material to said first-mentioned means for controlling the further conduction of said insulating material to said first-mentioned means.

2,429,078. **REFRIGERANT CONTAINER FOR RAILWAY CARS.** Vinton E. Sisson, Chicago, Ill., assignor to Standard Railway Equipment Mfg. Co., Chicago, Ill., a corporation of Delaware. Application April 2, 1945, Serial No. 586,205. 6 Claims. (Cl. 62-17.)

1. In a railway refrigerator car having a roof provided with a hatch, a wall, a substantially horizontal partition forming with said roof and wall a refrigerating

chamber below the hatch and above the lading compartment of the car; a refrigerant container positioned within said chamber below said hatch and spaced above said partition, a flue for conducting air cooled by refrigerant in said container

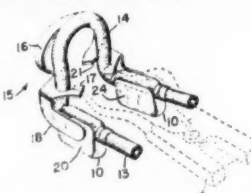


downwardly to the lower part of said lading compartment, the portion of the bottom of the container below said hatch being imperforate and the parts of said bottom adjacent said imperforate portion being foraminous.

AVAILABLE FOR LICENSING OR SALE

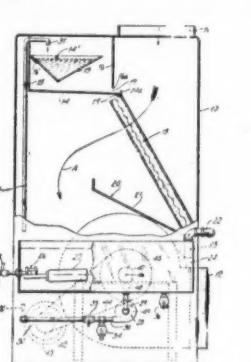
Pat. 2,393,387. **MILK COOLER.** Patented Jan. 22, 1946. Milk is cooled and aerated as it gravitates down an inclined cooling surface arranged to retard the flow, thus allowing ample time for thorough and uniform cooling. The cooling surface comprises a series of spaced transverse tubular cooling coils which are united by bridging walls between the coils. A separate series of transverse cooling coils is provided in the lower section of the cooling surface by means of passages in the bridging walls. Brine is circulated through the tubular cooling coils while a refrigerant is circulated through the other set. The cooling surface is covered by a suitable lid which may rest on the side walls. (Owner) William T. Lee. Address correspondence to Mrs. A. Fraser, 241 St. John's Road, Toronto 9, Ontario, Canada. Groups 33-73; 35-22-84. Reg. No. 8,317.

2,429,238. **REFRIGERATION APPARATUS FOR INDUCING LOCAL ANESTHESIA.** Joseph S. Kestarski and Arthur P. Black, United States Navy. Application Oct. 30, 1944, Serial No. 561,142. 1 Claim. (Cl. 128-400.) (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. C. 757.)



In an apparatus for inducing dental anesthesia by local refrigeration, a gingival applicator means comprising a pair of flattened hollow vessels of good thermal conductivity, refrigerant inlets and outlets at opposite ends of said vessels, and means for holding said vessels on the gingival tissues comprising a holder and flattened spring arms adapted to press said applicator vessels against the gingival tissues, said holder having tooth embracing fingers for securing said holder in position.

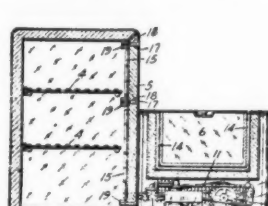
2,429,265. **APPARATUS FOR HUMIDIFYING AND CLEANING GASEOUS FLUIDS SUCH AS AIR.** Walter L. Fleisher, New City, N. Y. Application Aug. 16, 1944, Serial No. 549,668. 4 Claims. (Cl. 183-9.)



1. Apparatus for conditioning a gaseous fluid such as air under wintertime conditions in an enclosure wherein the fluid is largely recirculated to a prescribed humidity and for cleaning thereof, comprising a casing having an inlet for such fluid in its top and an outlet for the conditioned fluid in one of its sides in a lower portion thereof, a tank for a glycol-water containing solution of desired concentration supported by said casing, a conduit for connecting said tank to a source of water supply, a float-operated valve in said conduit, a float for operating said valve, a tiltable trough

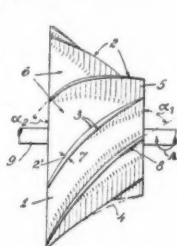
positioned in said casing above the level of said tank and adapted to tilt to a dumping position under the weight of a prescribed amount of said solution delivered thereto, means for pumping said solution from said tank to said trough, a substantially horizontal plate member onto which the prescribed amount of solution in said trough is dumped periodically with each tilting of said trough, a substantially vertical splash plate in conjunction with said horizontal plate member, a filtering screen position within said casing at an angle with the horizontal and below said horizontal plate member onto which the solution dumped onto said horizontal plate falls, a collecting trough having a sloping bottom positioned below said screen to catch the portions of the solution falling from said screen and means to return such solution portions from said collecting trough to said tank, said float being positioned to operate said valve to cut-off at the level of the remainder of initial solution in said tank just after the first prescribed dumping amount has been pumped therefrom to said dumping trough, and to permit said valve to open whenever the solution in said tank is below such level whereby replenishment of water evaporated from the solution in its travel from dumping trough back to said tank will be effected to restore the desired glycol-water solution concentration, and a fan within said casing for drawing the fluid to be conditioned through said inlet and through said filtering screen and for thereafter blowing the conditioned fluid outwardly through said casing outlet.

2,429,294. **REFRIGERATOR MADE UP OF SEPARABLE REFRIGERATING CABINETS.** Julian G. Pollock, Philadelphia, Pa. Application May 27, 1944, Serial No. 537,751. 2 Claims. (Cl. 62-116.)



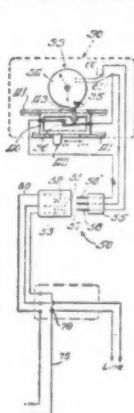
1. A transportable refrigerating apparatus comprising initially separate storage and intensive-freeze chambers; the storage chamber having one side open, and the intensive-freeze chamber having a wall component adapted to engage in and close the storage chamber open side; a refrigerating unit in the intensive-freeze chamber having circulatory connection with a cooling element on the wall component for closing-in the storage chamber; and means engageable through the wall component for securing the storage and intensive-freeze chambers in co-operative assembly at the location for use, and vice versa.

2,429,324. **ROTOR FOR CENTRIFUGAL COMPRESSORS.** Christian Meisser, Davos Dorf, Switzerland. Application Sept. 20, 1944, Serial No. 554,918. In Switzerland Dec. 30, 1943. 4 Claims. (Cl. 230-134.)



1. Rotor for a centrifugal compressor wherein the flow takes place diagonally to the rotor axis, having blades bent backwards in a screw-shape and with boundary lines derived from meridian-curves varying from flat to concave, the pressure flank as well as the suction flank of the said blades being formed each by a helix of uniform pitch, the pitch of the pressure flank being by so much less than the pitch of the suction flank, that the tip width of the blades at the inlet is approximately the same as the tip-width at the outlet.

2,429,449. **AUTOMATIC DEFROSTER ASSEMBLY.** John C. Buchanan, Ypsilanti, Mich., and Ira H. Reindel, Grosse Pointe Park, Mich., assignors to Borg-Warner Corp., Chicago, Ill., a corporation of Illinois. Application June 6, 1941, Serial No. 396,808. 6 Claims. (Cl. 62-4.)



1. In an automatic refrigerator defrosting assembly for electing periodic defrosting at selected intervals, means defining a compressor motor control circuit, means defining a time-operated switch mechanism including a second circuit and a switch therein periodically operated for opening said second circuit, and means for connecting said second circuit in series with said control circuit, said means being particularly characterized by the fact that the disconnection of said second circuit from said control circuit is effective to cause the closing of said control circuit in order that said refrigerator compressor may be operated when said time-operated mechanism is disconnected.

(To Be Continued)

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POSITIONS WANTED

REFRIGERATION MANUFACTURERS—Do you want experienced representative for Middle-Western group of states: Iowa, Kansas, Missouri, and Nebraska? Will consider valves, insulation, compressors, controls, accessories. BOX 2574 Air Conditioning & Refrigeration News.

VETERAN GRADUATED from the Milwaukee School of Engineering, satisfactorily completing the course of instruction prescribed for refrigeration service. I am capable of engineering small applications and installations. I have a good commercial background, am 27 years old and exceptionally ambitious. All offers will be considered. BOX 2594 Air Conditioning & Refrigeration News.

FACTORY FIELD service representative. Dealer, distributor contact. Willing to travel anywhere. BOX 2595 Air Conditioning & Refrigeration News.

SERVICE AND installation Manager. Many years experience handling all types refrigeration and air conditioning commercial, household. Shop purchasing and office management. New York, New Jersey, New England preferred. BOX 2596 Air Conditioning & Refrigeration News.

EXECUTIVE ENGINEER—15 years experience in plant management and sales engineering including development and promotion of new and existing products. Interested in connection with progressive manufacturing or sales concern located in New York City or Newark, N. J. vicinity. Mechanical Engineer graduate, registered. BOX 2601 Air Conditioning & Refrigeration News.

PLANT ENGINEER, desire complete charge operation and maintenance of ice and cold storage, air conditioning, or similar plant. 5 years experience supervising plant operation and maintenance, ammonia and "Freon," 300 to 1000 tons. Also 10 years in refrigeration industry as mechanic, service manager, factory representative. BOX 2604 Air Conditioning & Refrigeration News.

MANAGER SERVICE, installation, maintenance engineer. All types, sizes, domestic, commercial, industrial, refrigeration, air conditioning, heating, ventilating, "Freon," carrene, ammonia, CO₂, etc. Any industrial application: Dairy, cold storage, ice, food processing, etc. 20 years local and foreign experience. Technical education. Go most anywhere—United States or foreign. BOX 2606 Air Conditioning & Refrigeration News.

SERVICE MANAGER, age 33, 16 years experience refrigeration sales, installation and service, commercial and domestic, 1/4 to 100 tons, including ice and cold storage plants, locker plants, and air conditioning. 2 years electrical engineering. Capable taking complete charge installation and service. BOX 2607 Air Conditioning & Refrigeration News.

FACTORY REPRESENTATIVE, good distributor contacts in Southern states. Prefer domestic refrigerator and package commercial refrigeration equipment. Can handle all details between factory and distributors, or on a direct-to-dealer program, including service problems. Consider service representative only, but prefer sales and service. BOX 2609 Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

RETAIL SALESMAN to join one of California's leading commercial refrigeration firms. You would sell Tyler equipment, America's most complete line of commercial refrigeration. Thorough experience and successful selling record required. Excellent income. Please write stating full qualifications. Address F. WILLIAMS, 1940 South Main Street, Los Angeles 7, California.

DESIGNER FOR commercial refrigerators to design display cases, reach-ins, beverage coolers and freezers. Must have at least 5 years experience. Good opportunity with very progressive refrigerator manufacturer in Philadelphia area. State qualifications, previous employment and salary desired. BOX 2591 Air Conditioning & Refrigeration News.

MANUFACTURER'S AGENT. Due to increased production we now have several territories open for experienced, aggressive men to handle quality line of modern home freezers to dealers. Prefer men now covering refrigeration, appliance or farm implement dealers. Write experience, territory covered and other lines handled. Confidential. BOX 2597 Air Conditioning & Refrigeration News.

SALES MANAGER wanted: Leading locker manufacturer seeking experienced, aggressive man to head national sales organization. Position offers big opportunity for the right person who knows the locker industry, and interested in earning a substantial salary plus bonus. Write fully, stating age, experience and necessary qualifications. BOX 2599 Air Conditioning & Refrigeration News.

WANTED: SALESMAN to represent well-known locker manufacturer in conjunction with his present line—one who is now calling on dealers and contractors in the locker industry. Unusual opportunity for big commission earnings. State product and territory now being covered. BOX 2600 Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

SELLING OUT: used (as is) and rebuilt Frigidaire and Kelvinator condensing units with new a. p. capacitor motors. Write for list. EDISON COOLING CORP., 310 E. 149th Street, Bronx 51, N. Y.

EXCELSIOR BEER pumps—made since 1933 are again available in 2 sizes: 1/4 HP. and 1/2 HP. Attractive prices for dealers. EXCELSIOR MACHINE CO., 2601 Kutztown Road, Reading, Pa.

QUALITY BOBTAIL fountains: reach-ins, walk-in boxes—wood, metal; dough retarders; double duty cases—stainless steel, porcelain; dairy, florist, bakery cases; ice cream hardening cabinets; thermopane frozen food cases; milk, sandwich coolers; stainless steel back bars; with machines. Equipment made to special order. FRIGITEMP CORP., 931 Bergen St., Brooklyn 16, MA 2-9098.

FOR SALE: 1 5' x 5' Worthington self contained ammonia compressor complete with General Electric 3 phase motor and starter. Unit purchased new January, 1947. Used less than 300 hours. W. C. LORD, Box 578, Belle Glade, Florida.

JACK & HEINTZ fractional horsepower motors. Complete line of various sizes: 1/8, 1/4, 1/2, 3/4, 1-110/220 AC 60 cycles; 115/220 AC 50 cycles. Available for immediate delivery. Maximum discounts. Export Dept., S. J. O'BRIEN SALES CORP., 560 West 34th Street, New York 1, N. Y. Telephone WI. 7-2100.

SACRIFICING BRAND—new Copeland and other top brands. Condensing units in original crates. 1/4, 1/2, 3/4 HP. air-cooled. 1 1/2 and 3 HP. water-cooled. All priced for immediate clearance. Write or wire now. ROCHELLE REFRIGERATION COMPANY, 31 East 4th Street, New York 3, N. Y.

SEALED CROSLLEY TERMINALS. Installed from the outside in a few minutes without opening the compressor. Corrects leaky terminals on all Crosley "F-12" units. Set of three \$5.25 (Part No. 1020) Installation tool 20¢. Immediate delivery Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

SERVICEMEN—"FREON-12." Fifty 25 lb. drums full. Standard drums from Kinetic. While they last, \$21.00 per drum with 25 lb. of "Freon." F.O.B. Lima, Ohio. P. O. Box 1034. SPECIALTIES MFG. & SALES. 20% with order, balance C.O.D.

FOR QUICK sale—only new Sterling "Lo-Temp" transport refrigeration units. Certified 13,000 BTU ° temperature—Baker compressors—Trane evaporators—2 cya. Hercules motor. Built by Sterling, Omaha, to sell for \$2,285.00. Our price \$775. Write, wire or phone WEBBER MOTORS, Farnam at 26th Street, Omaha 2, Nebraska.

REAL BUY! New, Universal 1/4 HP units, compact, complete with motors, original cartons. Wholesale only, \$62.50. Rebuilt, like new: Mills 1/4 HP units complete with new motors, \$75.00. 1/2 HP, \$85.00. Add \$2.50 crating. Don't forget our compressor rebuilding. Immediate exchange on hundreds of models. BOX 2598 Air Conditioning & Refrigeration News.

FOR SALE to cut inventory—large quantity Brunswick Blue Flash coolers at distributor's cost—few Paley Frosted Food merchandisers at less than manufacturer's price. Some other miscellaneous pieces priced right for quick sale. What do you need? BOX 2605 Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

ATTENTION: MANUFACTURERS & jobbers. We buy for cash surplus inventories, reach-ins all sizes, showcases, etc. Send complete details. AFFILIATED REFRIGERATION SERVICE, 917-8th Avenue, New York 19, N. Y.

WANTED QUANTITIES of domestic refrigerators for export: Details, delivery dates, etc. BOX 2608 Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

FOR OUTRIGHT sale—patent rights on Holl-Inc. cap. for sealing Crosley terminal leaks—marketed since April '46—sells about 2,000 sets a year. Write W. F. HINES, Box 164, Dumont, N. J.

MIAMI, FLORIDA—one of leading refrigeration, air conditioning, and appliance sales and service establishments—in same location ten years. Over \$150,000.00 yearly sales. Business with profitable past and unlimited future. Netted over \$20,000.00 past year. Located in fastest growing city in U.S.A.—Miami. Inquiries confidential. BOX 2565 Air Conditioning & Refrigeration News.

PARTNERSHIP OR investment opportunity is available in a recently established washing machine jobbing house located in a large Florida city. \$3,000 required for partnership. Arrangements may also be made for sale of limited shares of stock in the business. Write BOX 2602 Air Conditioning & Refrigeration News.

WANTED: WHOLESALE refrigeration supply business, located in well populated area. Must be well established going business. Will pay cash for the right proposition. Buyer is well versed in refrigeration and air conditioning and is looking for a location where this is essential. BOX 2610 Air Conditioning & Refrigeration News.

EXPERIENCED MANUFACTURER'S AGENTS

Men accustomed to annual earnings over \$10,000, needed to establish distributorships and dealerships for America's finest line of self-contained under-bar beverage coolers. You'd be backed by extensive advertising plus promotional efforts of well-known, respected manufacturer. Please state complete qualifications.

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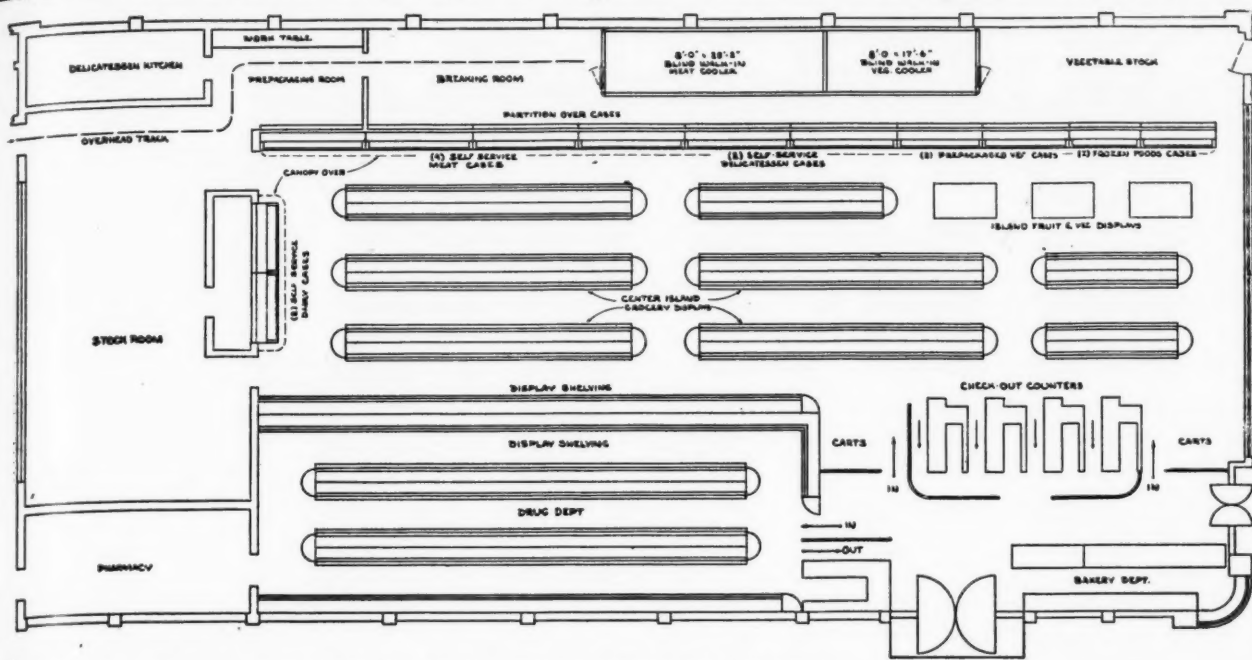
Company.....

Street.....

City..... Zone..... State.....

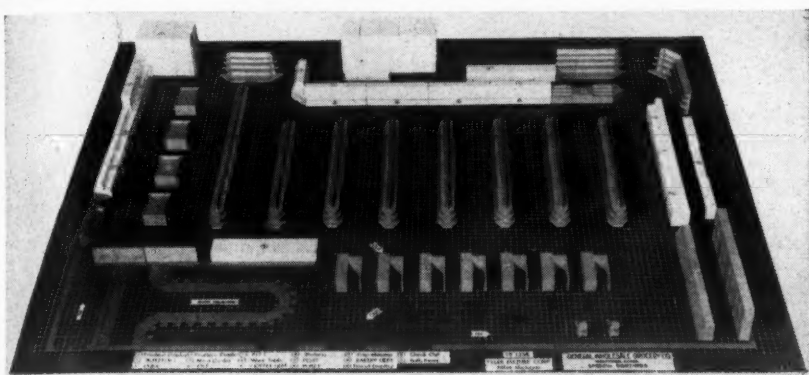
12/15/47

Life Like Scale Model Helps Owner Visualize Installation



The sketch above is a conventional floor plan, such as is ordinarily used to give the store owner an idea what his equipment will look like in his store when the job is finished. Below is a scale model photograph as furnished by the Tyler Fixture Corp. Tyler agent makes a rough drawing of the customer's store and the equipment he is planning to purchase; the factory lays out a model store from this drawing and photographs it, sending its agent two photographs of the miniature layout. One goes to the customer, the other in the dealer's file. From the model kit which the dealer

has he may reconstruct the actual model from the photograph.



Commercial Manufacturer Replaces Confusing Floor Plan with Miniature Layout Photograph

NILES, Mich. — To help a store owner visualize more easily how his store would look arranged along modern lines, the store planning department of the Tyler Fixture Corp. here announced a new service whereby that owner will be furnished a photograph of a scale model of the proposed arrangement.

Charles Naas, manager of the department, explained that company agents now send the factory a rough layout of the store on graph paper provided by the company.

The planning department will then make a thorough study of the store, create a new plan for increased sales and profits, and set up the new arrangement with scale models on a table marked off in squares 1/2 in. to the foot.

This arrangement will be photographed and two 8 x 10 in. glossy prints sent to the agent, one for himself and one for the customer.

A complete Tyler store planning kit contains 300 scale model pieces and a folding table, Naas said.

Vogel Represents G-E Ranges, Water Heaters In Southeast

ATLANTA—Len J. Vogel has been appointed southeastern district representative for General Electric ranges and water heaters, it has been announced by J. M. Walker, district manager of appliance sales.

A graduate of the University of Maryland, Mr. Vogel joined General Electric at Philadelphia in 1932. He was transferred to Cleveland as commercial refrigeration specialist in the product service division, and in 1939 returned to Philadelphia as Atlantic district service supervisor.

Steel Stampers Oppose Government Allocations

TOLEDO — Opposition to government allocation of steel in any form was expressed by representatives of more than 75% of steel stamping plants in 15 states, a survey conducted by the Pressed Metal Institute here indicated recently.

The survey, which covered 28% of the institute's membership, showed, too, that 62% of those interviewed considered their present allocations of steel by their suppliers to be unfair.

A typical reaction against government control came from a Detroit firm which stated: "We believe that governmental controls lead to other evils more basically dangerous than our steel problems, also a possibility of more, not less, black marketing."

On the other side, a Monroe, Mich. firm declared: "If this country is to feed the world it would seem a matter of plain common sense to us to see to it, by rationing or some other means, that all manufacturers of farm machinery must have steel available."

A Cleveland stamping firm, though not in favor of government controls, expressed this idea: "I favor a reduction in the amount of steel being exported and a deeper investigation into how steel gets onto the 'gray market' that these steel mills say they know nothing about, but it is their steel that is being handled by these racketeers."

Beck Mfg. Forms In Louisville

LOUISVILLE, Ky.—Beck Mfg. Co., of Louisville, has been incorporated with capital stock of \$20,000 to deal in air conditioning equipment. The incorporators include Robert A. Beck, J. Linus Beck, and C. Leland Beck.

\$76,000,000 To Be Spent on Air Conditioning For Hotels, Survey Shows

NEW YORK CITY—Over \$76,000,000 now is being spent or will be appropriated during the next few months for air conditioning installations in hotel properties across the nation, according to Charles A. Horrorth, executive vice president of the American Hotel Association.

Basing the figure on a closely tabulated survey taken of the 5,700 leading hotels comprising the association's membership, Horrorth predicted the day was not far away when air conditioning in hotels would be as common as a bath in every room.

The AHA executive said that most hotels were just now emerging from the hectic six-year period of overcrowding which had been aggravated by serious shortages of materials and supplies plus a critical lack of well-trained employees.

"The career hotel operator is determined to rehabilitate and modernize his property, recapture his traditional

reputation for warm hospitality, and establish new high standards of comfort, convenience, and service.

Jules Alexandre Names Four To Sales Posts

HARRISBURG, Pa.—Four new sales managers were recently named to head various divisions of Jules Alexandre, Inc., Crosley distributor here.

Announced by Jules Alexandre, president, the new appointees and their staffs are as follows:

Harry Young will manage sales in the distributor's Crosley division assisted by Mike Ressler and Bill Attick.

S. Earl Applegate has been appointed sales manager of the Apex division. His assistant will be Les Kauffman.

Marquess Dean, new sales manager for the Coleman Heating division, will have a staff of four to aid him. It consists of: William Brackett, Frank Kelly, Delroy Wuster, and Homer Shadle, Jr.

Clarence Brown will head sales for the "Special Products" division.

Ice Cream is Easy to make with Emery Thompson EQUIPMENT

The unit illustrated here is the New Emery Thompson 40 Quart Horizontal Freon Freezer. This unit offers many outstanding features, such as... all parts are rust proof, 4 way slow speed dasher, every inch of cylinder is fast freeze, large 3 horse-power motor, all seams electrically welded, tested precision built cylinder and dasher, bright dairy metal cylinder front, all parts are self lubricated, stainless steel panels.....

...EASY TO OPERATE
...EASY TO MAINTAIN AND KEEP CLEAN
...AND DESIGNED EXPRESSLY TO BRING YOU REAL PROFITS!

Emery Thompson MACHINE AND SUPPLY CO.
PIONEERS IN ICE CREAM FREEZER DEVELOPMENT FOR OVER 40 YEARS
1349 Inwood Avenue, New York 52, N. Y.



Announcement

ESPECIALLY FOR THE DEALERS DOWN SOUTH

Our valuable franchise is now available for the thoroughly tested Remington Model 10 All-Year Room Air Conditioner — the unit that heats as well as cools . . .

This is the heavy duty 1 1/4 horsepower air-cooled unit which is now making such a great name for itself in 19 different countries, especially the Tropics . . .

Samples are available for immediate delivery. Ask now, for full information.

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FARM MILK COOLERS
DIVISION OF WILSON CABINET CO., INC.
SMYRNA, DELAWARE

In Commercial Field



B. R. DAVIDSON

Davidson Heads Up--

(Concluded from Page 1, Column 4)
country. Headquarters for the company have been established at 5579 Pershing Ave. in St. Louis.

Davidson will head up the firm, which was incorporated as a \$50,000 Missouri corporation earlier this month, as president. He will also have the chief role in planning and designing the products which the company will handle.

A graduate of Yale university in 1926 (Sheffield Scientific School), Davidson was in charge of refrigeration activities for the Kroger Grocer & Baking Co. at Cincinnati for five years, and was for 11 years manager of the Refrigeration Division of Hussmann-Ligonier Co. During the past year he has conducted an engineering consultant practice. He has been active in the American Society of Refrigerating Engineers, serving on several technical committees, including the D-4 committee on commercial equipment standards.

Contractors Indicted on Restraint of Trade Charge

WASHINGTON, D. C.—The Greater Kansas City Chapter of the National Electrical Contractors Associations and its manager, J. W. Collins, were among six electrical contracting firms and 14 individuals indicted recently on charges of "conspiracy to restrain trade in the installation of electrical systems in housing," Attorney General Tom C. Clark announced here.

Those indicted are in the Kansas City and Springfield, Mo., areas. Two indictments were returned by a Federal grand jury in Kansas City, Clark said.

Besides the NECA chapter and Collins, who were named in both indictments, Clark listed these other Kansas City defendants:

Evans Electrical Construction Co., Squire Electric Co., North Kansas City Electric Co., A. E. Smiley & Co., and C. F. Miles, John St. Clair, Charles Ossley, Arthur E. Smiley, John C. Murray, Fred E. Geiss, and Harry Young.

Clark said the Springfield defendants are: Aton & Luce, Inc., Mound City Electrical Engineering Co., and O. F. Luce, W. B. Aton, F. S. Leidy, Victor L. Doris, C. W. Lamons, and O. M. Roper.

"These cases are a part of the program of the Department of Justice to attack conspiracies in the housing field which contribute unlawfully to construction costs," Clark explained.

'Voluntary' Plan of Allocation Likely

WASHINGTON, D. C.—"Voluntary" methods of allocation of scarce materials and commodities are called for in the Republican program for combatting inflation, introduced in Congress last week.

The main points in the Republican plan of interest to industry are:

1. The encouragement of voluntary agreements in industry for dividing and allocating scarce materials which affect living cost and industrial production. Such voluntary agreements would be immune from anti-trust prosecution, but could not include price fixing.

Show Banquet Plan--

(Concluded from Page 1, Column 5)
dancing, and the entertainment features include the Cleveland Brown Majorettes, the Don Large chorus, and many single acts. Entertainment will continue through until 1 a.m.

There will be seating arrangements for 1,800 persons at the banquet, and every seat will be reserved, it was emphasized by Chairman Hood.

While blocks of tickets have been allotted the various cooperating associations, others may get tickets by applying to Refrigeration Equipment Manufacturers Association, 1107 Clark Building, Pittsburgh. The banquet tickets are priced at \$7.50, which covers the tip.

Any profit made from the All-Industry Exposition does not go into the treasury of Rema, but into a

Public Relations and Educational Fund, which is used to promote the interests of the industry with a public relations program, and a co-operative program of an educational character with the service engineers and contractors.

Denna White Joins Staff Of Cox-Frank Corp.

NORFOLK, Va.—Denna L. White has recently been named to the engineering staff of the Cox-Frank Corp. here. He will be associated with design and erection of refrigeration, air conditioning, and heating systems, the announcement said.

A graduate of Virginia Polytechnic Institute, White has previously been with Virginia Electric & Power Co., Suffolk, Va. and Newport News Shipbuilding & Drydock Co., Newport News, Va.

Wholesalers Help With 'Build-an-Ad' Plan--

(Concluded from Page 1, Column 2)
service grew out of a discussion between the trade relations committee of the Minnesota Electrical Council and representatives of national manufacturers and electrical wholesalers and distributors on sales promotion and merchandising activities.

Dealers and contractors on the trade relations committee pointed out their need for assistance from the industry in getting good illustrations, half-tones, or mats, and selling copy to use in advertisements that would promote the goods and services that they individually have to offer the public.

They pointed out that they understood why manufacturers stressed brand names in advertising the manufacturer supplied and left little space for the dealer to publicize his

store and services along with the product.

Wholesalers and distributors then came forward and offered to supply, without charge, an advertising service tailored to meet the dealer's requirements and yet flexible enough so that the dealer could use the material to prepare advertisements of varying sizes and designs.

The wholesalers and distributors also stated that they would raise a fund to cover all costs for the service and would request the N.C.E.I. to implement the program and prepare and distribute the material.

For the present, the N.C.E.I. bulletin said, the service will not include materials on major appliances because the dealers felt that these through his distributor.



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BUSH

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Bush contractors don't have too many worries . . . don't have to sweat over figuring a job. For Bush has a nationwide organization of factory representatives . . . trained refrigeration engineers who can quickly work out the requirements of any installation and advise on every detail of equipment, operation, and maintenance. *They do the sweating . . . you can go fishing.*

These Bush representatives are always ready to help you put the right Bush equipment into every job. And, because it's Bush equipment . . . has 40 years of engineering skill behind it . . . you can be sure it is correctly designed, conservatively rated, ruggedly built. You can be sure it will give years of trouble-free service.

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